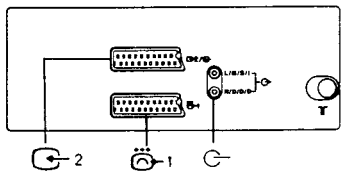
SONY KVE2910B

MODEL

SERVICE MANUAL

21 pin connector (1, 2)



Pin No	1	2	Signal	Signal level
1	○	○	Audio output B (right)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
2	○	○	Audio input B (right)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
3	○	○	Audio output A (left)	Standard level : 0.5Vrms Output impedance : Less than 1kohm*
4	○	○	Ground (audio)	
5	○	○	Ground (blue)	
6	○	○	Audio input A (left)	Standard level : 0.5Vrms Input impedance : More than 10kohms*
7	○	●	Blue input	0.7V±3dB, 75ohms, positive
8	○	○	Function select (AV control)	High state (9.5–12 V) : Part mode Low state (0–2 V) : TV mode Input impedance : More than 10kohms Input capacitance : Less than 2 nF
9	○	○	Ground (green)	
10	○	○	Open	
11	○	●	Green	Green signal : 0.7V±3dB, 75ohms, positve
12	○	○	Open	
13	○	○	Ground (red)	
14	○	○	Ground (blanking)	
15	○	–	Red input	0.7V±3dB, 75ohms, positive
	–	○	(S signal) croma input	0.3V±3dB, 75ohms, positive
16	○	●	Blanking input (Ys signal)	High state (1–3 V) Low state (0–0.4 V) Input impedance : 75ohmes
17	○	○	Ground (video output)	
18	○	○	Ground (video input)	
19	○	○	Video output	1V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
20	○	–	Video input	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
	–	○	Video Input/Y (S signal)	1 V±3dB, 75ohms, positive Sync : 0.3V (–3, +10dB)
21	○	○	Common ground (plug, shield)	

○ connected ● unconnected (open) * at 20 Hz–20 kHz

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND ⚠ MARK ON THE SCHEMATIC DIAGRAMS ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THE SERVICE MANUAL.
CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THE SERVICE MANUAL PUBLISHED BY SONY.

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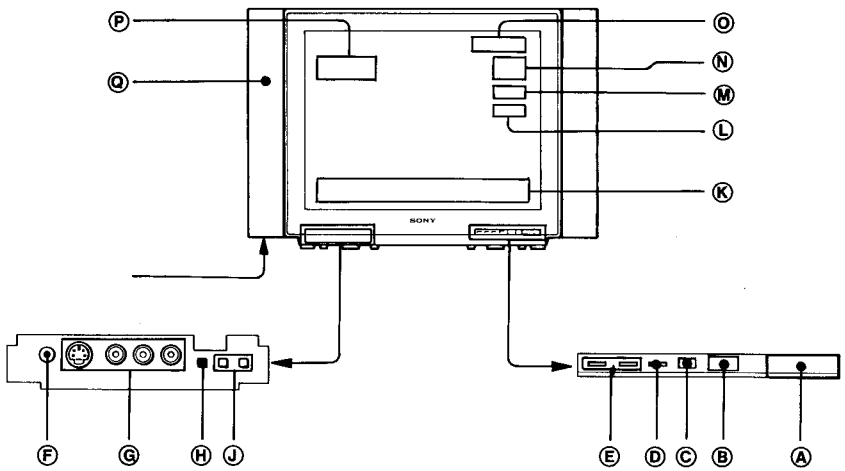
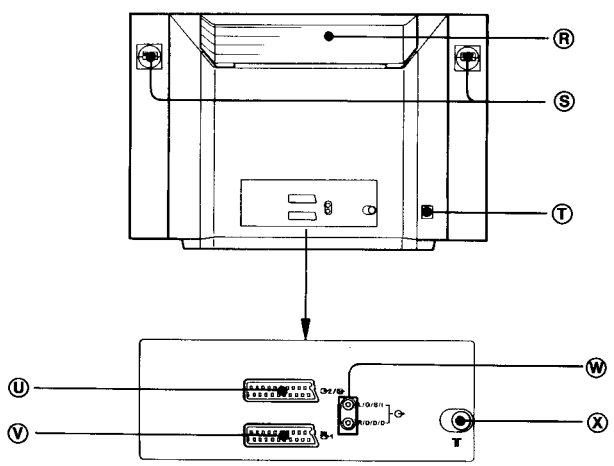
SECTION 1
GENERAL





ON THE SET

Ⓐ Power Switch ⏻

Use it to switch the set on and off. When you switch the set on, the programme number of the station tuned in will be indicated in the on-screen display Ⓝ for some seconds. In case of short breaks of operation, you can switch the set on and off using the Remote Commander (See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓑ Remote control detector

(See »CONTROLS ON THE REMOTE COMMANDER«).

Ⓒ ⏻ Standby/Response indicator

This indicator lights up when the TV set is in standby mode and it flashes each time the set receives signals from the Remote Commander.

Ⓓ Noise reduction indicator

This indicator lights up when noise reduction has been activated by pressing button 22 on the Remote Commander.

Ⓔ Stereo A/B indicators

During bilingual programmes one of the two indicators lights up, depending upon the selected channel **A** or **B**. When stereo programmes are broadcast both indicators light up. (See »CONTROLS ON THE REMOTE COMMANDER«).

Jacks and control panel

The jacks and the control panel are situated behind a cover. Please press the arrow marking on the cover to open it.

Ⓕ Headphones jack (stereo minijack)

Connect only stereo headphones.

Ⓖ Input jacks

(Y/C input) connector (4-pin) **3**
Video input jack (phono jack) **3** (yellow)
Audio input jacks (phono jacks) L/G/S/I and R/D/D/D (red and white).

Ⓗ Mode select button

Use this button to select either the programme tuning mode, volume adjustment or the input mode.

Ⓙ Adjustment buttons +/–

Select at first the item to be adjusted using the Mode select button Ⓗ: **P** (programme tuning mode), (volume) or (input mode), then adjust the item by pressing the + or – button.
You can also use these buttons to reset the picture and sound adjustments to the factory-set levels. For this purpose press both buttons simultaneously.

On-screen display

When you press button 12 on the Remote Commander, the following information will be indicated on the screen:

Ⓚ Picture and sound adjustment items:

contrast, colour, brightness, hue (only for NTSC), sharpness, bass, treble or balance and the respective levels; as well as mute, reset, space sound and loudness indications, when the respective buttons are pressed.

When you press button 10 on the Remote Commander, the following information will be indicated on the screen:

Ⓛ TV-System: B/G

Ⓜ Channel number

Ⓝ Programme number or input mode;
1, , 2, 2, 3 or 3;

Ⓞ Indication of the station name

Ⓟ AV output indication; 1, 2, 3 or TV (see »CONTROLS ON THE REMOTE COMMANDER«).

Ⓠ Speakers

See »HOW TO ATTACH THE SPEAKERS «.

Connectors on the rear

Ⓡ Woofer

Ⓢ Terminals for connecting the woofer

Ⓣ Terminals for the right and left speakers

Ⓤ Euro-AV-connector 21-pin /

For connecting a VTR, 8 mm video camera recorder, a video disc player or in general devices with an S-Video-output.

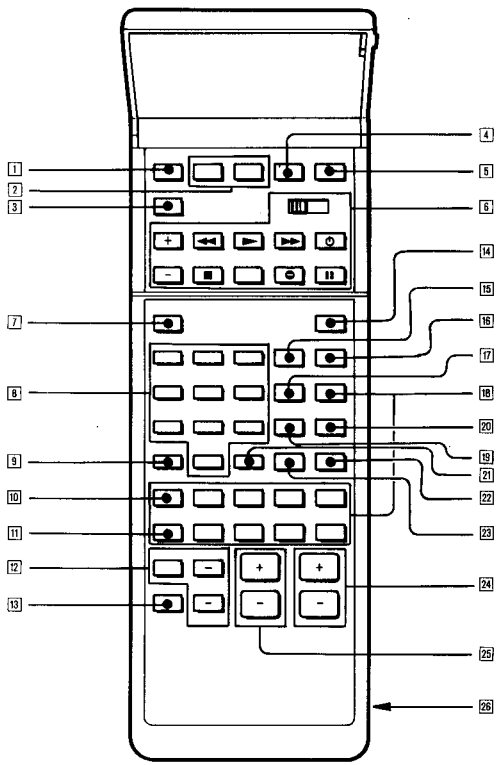
Ⓥ Euro-AV-connector 21-pin 1

For connecting a VTR, a video disc player, a computer ecc.,

Ⓦ Audio-output-jacks (phono jacks)

For connecting audio equipment, e.g. an amplifier, so that the sound will be output at the audio equipment. In this case the volume is adjustable on the TV set.

Ⓧ Aerial terminal



ON THE REMOTE COMMANDER

On the set there is a Remote Control detector Ⓑ, which receives the signals of the Remote Commander.

1 **Preset-button** Used for selecting the Preset mode. See »TO PRESET CHANNELS«;

2 **Tuning +/– butttons**
a) Preset mode: Used for tuning in stations in the Automatic Station Search: See »TO PRESET CHANNELS«;
b) TV-mode: Used for fine-tuning a station. See »ADDITIONAL FUNCTIONS«;

3 **C∘ button (Clear)**
Used for clearing programme positions, so that the position will be skipped when the PROGR +/– buttons 24 are pressed. See »TO PRESET CHANNELS«.

4 ◇ **Store button:** Used for storing channels. See »TO PRESET CHANNELS«;

5 **TV-system-select-button**
This button has no function;

6 **Video selector and video operation buttons**
Used for operating Sony video equipment. For details see »CONNECTING OTHER EQUIPMENT«;

7 **Mute button**
By pressing this button the sound of the set will be switched off and by pressing it once more the sound will restored.

8 **Number buttons**
a) Used to select programme positions or to input channel numbers (in the preset mode).
b) If the set is in the standby mode, press one of the number buttons to switch it on.
c) After pressing the Output select button 17 the buttons 1-3 can be used to select the different Output connectors.

9 **-/-- Button**
In case of two digit numbers, press first this button and then the two respective number buttons 8.

10 **Button for On-screen display**
By pressing this button information about the station tuned-in will be indicated on the screen. The indications will disappear after some seconds with the exeption of the programme number, which will stay on the screen until the button is pressed once again.

11 **Time button**
In TV-mode: If teletext service is broadcast on the selected channel, press this button to display the current time on the screen and once again to make it disappear.

12 **+/– Buttons for picture and sound adjustments**
a) TV-mode:
The picture and sound adjustments are stored as standard values. You have, however, the possibility to change them to your individual liking. Press the button repeatedly until the required item is indicated in the on-screen display: contrast, colour, brightness, hue (only for NTSC colour system), sharpness, bass, treble or balance. You can adjust the settings by pressing the + or – button.
b) Preset-mode: Use these buttons to name a station. See »TO PRESET CHANNELS«;

13 **Reset-button**
By pressing this button the picture and sound adjustments are reset to the factory-set levels.

14 **Standby-button**
Press this button to switch the set into standby-mode. You can switch it on again by pressing the TV-button 16 or one of the number buttons 8. To return to the teletext mode, press the 18 button. There will be a slight delay before the picture is restored.

Note

Use the Standby-button 14 only when switching the set off for a short period of time. If the set will not be used for a longer span of time, switch it off by using the Power switch Ⓐ.

15 **Input-Select-Button**
Press this button to select the audio- or video-signals input at the various input connectors. With each pressing of the button a different connector is selected. The following indications will appear sequentially:
1 → (RGB) → 2 → 2 → 3 → 3
TV-mode

16 **TV-Button**
When pressing this button the set returns from standby, video input- or teletext mode to the TV-mode.

17 **Output-Select-Button**
Press this button to select the audio- or video signals to be output at the / connector. First press this button, then select the desired signal source using the number buttons 8 (either 1, 2 or 3) or the TV-button 16 (if the signals which are on the screen are to be output).

18 **Teletext operation buttons**
These buttons are used for teletext operation. See »VIEWING TELETEXT«.

19 **Loudness button**
By pressing this button the high and low tones will be emphasized. Press the button again to restore the normal sound. The indications on the screen will be or .

20 **A/B button**
To select the channel of bilingual programmes. Usually the synchronized version is broadcast on channel **A** and the original sound is broadcast on channel **B**.
In the video input mode (Euro-AV-connectors) this possibility of selecting channels also exists.

21 **C (Channel select) button**
Use this button for direct channel tuning in the TV-mode. See »ADDITIONAL FUNCTIONS«.

22 **Noise reduction button**
Press to reduce the noise on the picture. The Noise reduction indicator Ⓓ lights up. Press the button again to restore the normal picture.

23 **Space sound button**
Press this button to obtain special acoustic effects. Press it again to restore the normal sound. The indications on the screen will be or .

24 **PROGR +/– buttons**
TV-mode: Use these buttons to scan the available programmes up- or downwards.
Preset mode: Use these buttons to scan the available channels up or downwards.

25 **+/– buttons for adjusting the volume**

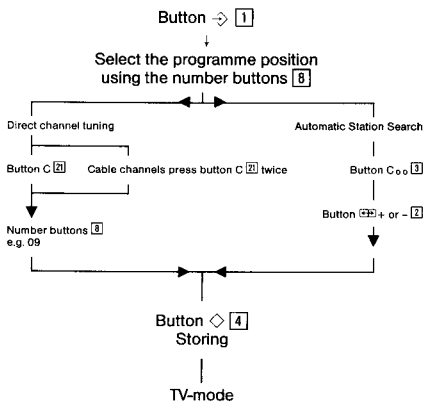
26 **Battery compartment (on the rear)**

1-2. TO PRESET CHANNELS

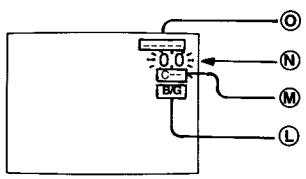
Use the buttons on the Remote Commander for presetting. In total there are 60 programme positions at your disposal for storing channels.
There are two different ways of tuning in channels:

1. Direct Channel Tuning
You know the channel number of a station and can input it directly.

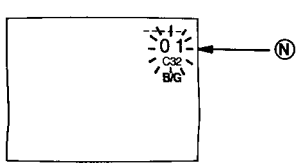
2. Automatic Station Search
The set searches automatically for stations (including cable channels).


Button ⇨ 1
Select the programme position using the number buttons 8
Direct channel tuning
Automatic Station Search
Button C 21
Cable channels press button C 21 twice
Button C∘∘ 3
Button ⇔ + or - 2
Number buttons 8 e.g. 09
Button ◇ 4 Storing
TV-mode

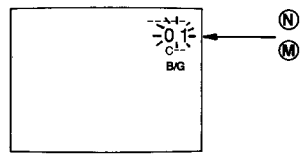
1. Direct Channel Tuning
1. Press the Preset button ⇨ 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓝ starts blinking.



2. With the buttons PROGR +/- 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first the button -/-- 9 and then the two number buttons.

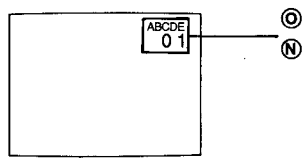


3. Press button **C** 21. The indication »C« and the channel number start blinking in the display Ⓜ. Select the channel number with two digits (e.g. 04) using the number buttons 8.



If you want to select a cable channel press button **C** 21 twice. In this case the indication »S« will appear in the display Ⓜ. Select the channel number as described above.

4. Press the button ◇ 4 in order to store the channel and to return to the TV-mode.



If you want to store further channels, repeat the steps 1 to 4.

2. Automatic Station Search

1. Press button ⇨ 1. You are now in the preset mode of the set. The programme number in the on-screen display Ⓝ starts blinking.

2. With the PROGR buttons +/- 24 or the number buttons 8 you can select the programme position. In case of two-digit numbers, press first button -/-- 9 and then the two number buttons.

3. If there is already a stored station on the selected programme position, press button **C∘∘** 3.

4. Press one of the tuning buttons ⇔ +/- 2 to start the station search. The search will be interrupted as soon as a station is tuned in. Press the tuning buttons repeatedly until you find the desired station.

5. If you have found the desired station, press button ◇ 4. Now the selected station is stored and you are back in the TV-mode.

6. If you want to store further stations, repeat the steps 1-5.

Skipping of unused programme positions
Using button **C∘∘** 3 you have the possibility to have unused programme positions (e.g. without a stored station) skipped, when pressing the buttons PROGR +/-24 on the Remote Commander.

1. Press button ⇨ 1. You are now in the preset mode of the set.

2. Use the buttons PROGR +/- 24 to select the programme position, which you want to have skipped.

3. Press button **C∘∘** 3.

4. Press button ◇ 4 to store the cleard programme position and to return to the TV-mode.

The skipped programme positions still appear when you press the number buttons 8 on the Remote commander.

If you want to name a station
After presetting the stations you have the possibility to name them. The selected name will appear in the on-screen display Ⓞ.

1. Press the preset button ⇨ 1.

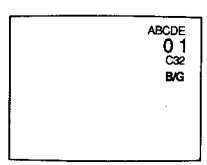
2. Press the button ⇦ 12. The first column of the station name starts blinking. Press either button + or - 12 and select the desired character (number or letter, 0-9, A-Z, - for a blank column).

3. Press button ⇦ 12 again. Now the second column starts blinking and you can select the second character.
In this way five characters can be selected.

4. Press button ◇ 4 to store the station name.

Notes

- If you press the preset button ⇨ 1 instead of button ◇ 4 the set will return to the TV-mode without storing the channels.
- If you press a wrong programme or a channel number, an »x« will be displayed on the screen.
- When pressing two number buttons, the second number button should be pressed within 5 seconds after the first one, otherwise the operation will be cancelled.

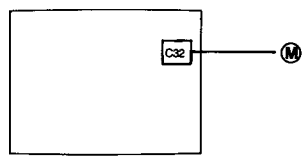


ADDITIONAL FUNCTIONS

Direct Channel Tuning in the TV-mode
You have the possibility to tune in channels directly when the set is in the TV-mode without storing these channels.
Example: You tune in channel number 32. If you switch the set off or change the programme position, this channel will be cancelled.

1. Press the button **C** 21. In the display Ⓜ the indication »C« will appear. For cable channels press the button **C** 21 twice. On the screen »S« will be displayed.

2. Select the channel number with two digits using the number buttons 8 (e.g. for channel 4 press first 0, then 4). The indication on the screen will disappear within some seconds.



Manual Fine Tuning
If the reception of a channel is not satisfactory, you have the possibility to disactivate the Automatic Fine Tuning, which is usually in operation during presetting in order to tune in the best possible picture.
Press one of the tuning buttons ⇔ +/- 2 to fine-tune a channel. The Automatic Fine Tuning will be restored when the respective programme position is pressed once again.

Auto shut off-Function
The TV set automatically goes into standby-mode some time after the transmission on a channel is finished.

1-3. VIEWING TELETEXT

To view the teletext service, use the Remote Commander.
The buttons for teletext operation are indicated in green.

Operation

1 Select the TV channel for the desired teletext service. When the signal is weak, teletext errors often occur.
2 Press ▤/▨ (TEXT/MIX) to display the teletext service.
3 Key in the three digits of the desired page using the number buttons. If an error is made, complete the three-digit sequence by keying in any digit. Then, re-enter the correct page number.
The requested teletext page is displayed.

To return to the TV mode, press TV on the Remote Commander.

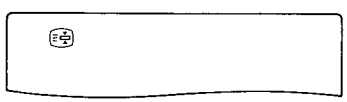
To request the index page
Press ⓘ (INDEX).
If the necessary signal is not being broadcast, page 100 is displayed.

To access the next or preceding page
Press ⊞ (PAGE +) or ⊟ (PAGE –).

To superimpose the teletext display on the picture
Press ▤/▨ twice from the TV mode.
Press ▤/▨ again to return to the TEXT display.

To suppress the teletext display so that the TV picture is displayed
Press ⊠ (TEXT CL).
This button can be operated from both the TEXT and MIX displays.

To prevent a teletext page from being updated/changed
Press ⊜ (HOLD). The HOLD symbol appears on the screen.
To resume normal teletext reception, press ▤/▨ (TEXT/MIX).



To resume normal teletext reception, press ▤/▨.

To enlarge the teletext display
Press ⊡ once to enlarge the upper half of the display; press again to enlarge the lower half of the display. And press again to return to the normal display.

To reveal concealed information such as answers to a quiz
Press ⓡ (REVEAL).
Press again to conceal the answers.

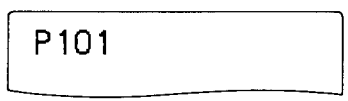
The teletext service can be displayed directly from the standby mode by pressing ▤/▨ (TEXT/MIX).

To receive the teletext service of a different TV channel
1 Press TV to return to the TV mode.
2 Select the desired TV channel.
3 Press ▤/▨ (TEXT/MIX).

Note

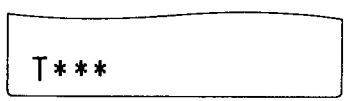
Buttons not referred to in the text do not operate.

To watch the TV programme while waiting for a requested page to be displayed
1 Request the new page.
2 Press ⊠ to watch the TV programme.
The requested page number and other data appear at the top of the screen. When the requested page has been captured, the page number is displayed in the top left hand corner of the screen.

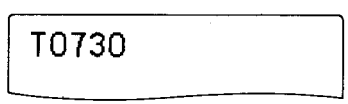


To view this page, press ▤/▨.

To have a requested page displayed at a pre-determined time
1 Request a time coded page (e.g. alarm page).
2 Press ⊡ (TP ON).
"T✱✱✱✱" will appear at the bottom of the screen.



3 Enter your request time with the number buttons, using four digits. For example, 07 30.



To watch the TV programme until the requested time, press ⊠ (TEXT CL). At the requested time, the page number will be displayed at the bottom of the screen.
To view this page, press ▤/▨.
To cancel the request, first ensure that the teletext page is displayed, then press ⊘ (TP OFF).

To view the input picture
Press the ⊃ 15 button repeatedly until the desired input signal indication appears on the screen.

⊃ **1:** to view the audio and video signal input through the ⊃ **1** connector on the rear.

⊃ **1:** to view the RGB signal (i.e. from a computer, etc.) input through the ⊃ **1** connector.

⊃ **2:** to view the audio and video signal input through the ⊃ **2/▭** connector on the rear.

▭ **2:** to view the S video signal (from a VTR equipped with an S video output) input through the ⊃ **2/▭** connector.

⊃ **3:** to view the audio and video signal input through the ⊃ **3** connectors and the audio input jacks ⊃ (yellow, white and red) on the front.

▭ **3:** to view the S video signal input through the ⊃ **3** connectors on the front (4-pin connector and white and red phone jacks).

You can also select the desired input mode using the buttons on the front of the set. Select the ⊃ mode with the mode select (P→ ◿ → ⊃) button (F) then press +/– button.

To return to the TV mode, press the TV-button.

To select the signal to be output from the ⊃ 2/▭ connector
Press the ⊃ button 17, then 1, 2, 3 or the TV-button 16 while ⊃ is displayed, so that one of the following indications is displayed:

1 ⊃: The audio and video signal input through the ⊃ **1** connector is output from the ⊃ **2/▭** connector.

2 ⊃: The audio and video signal input through the ⊃ **2/▭** connector is output from the ⊃ **2/▭** connector.

3 ⊃: The audio and video signal input through the ⊃ **3** connectors is output from the ⊃ **2/▭** connector.

TV **2:** The audio and video signal input through the ⊓ aerial terminal (i.e. usually the TV signal) is output from the ⊃ **2/▭** connector.

The indication will disappear after a few seconds.

Note

The TV-signal is always output at the EURO-AV connector ⊃ **1**.

To operate a Sony video equipment
The video operation buttons 6 on the Remote Commander can operate the VTRs and video disc players manufactured by Sony.

1. Switch the video selector to the desired position.
VIDEO 1: to operate Sony Betamax VTR and SLV 202 VHS.
VIDEO 2: to operate Sony 8 mm VTR.
VIDEO 3: to operate Sony VHS VTR.
MDP: to operate Sony video disc player including a multi disc player.

2. Press the operation button(s) to start operation.
PROGR +/–: to select the desired programme on the VTR.

◀◀ : to rewind the tape or to rapidly go back to the desired position on the disc

▶ : to start playback

▶▶ : to advance the tape or the disc rapidly to the desired position

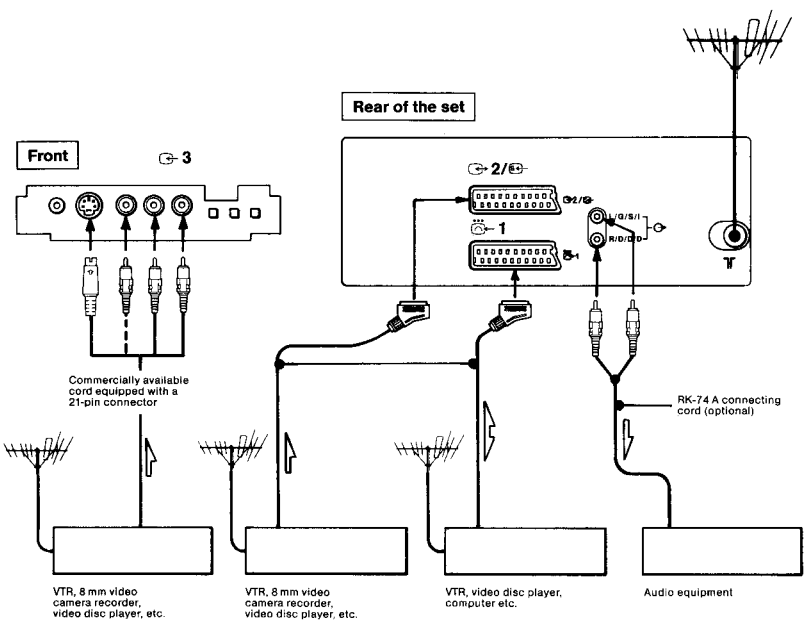
■ : to stop the tape or the disc, or to release the pause mode

● : to start recording on the VTR
Be sure to press this button and the one on the left simultaneously

⏻ : to switch the video equipment on and off

■■ : to stop the tape or the disc temporarily (pause)

1-4. CONNECTING OTHER EQUIPMENT



* Connect the S video output of the VTR, etc. here.
** To connect S video connectors (4-pin DIN), use an optional YC-15/YC-15 EV connecting cable.

Notes

- It is also possible to connect a VTR using the 1r terminal. In this case, connect the aerial to the aerial terminal of the VTR.
- Move the VTR away from the TV if the picture or the sound is distorted.
- Computers which have RGB output only can be connected to the 1 input connector.

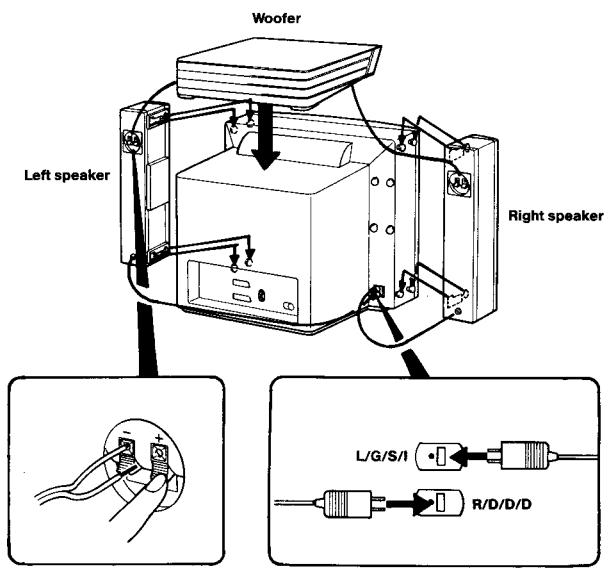
S video input (Y/C input)
Video signals may be separated into Y (luminance or brightness) and C (chrominance) signals.
Usually these two signals are combined in a VTR and output as one signal, and supplied to a TV. Separation of the Y and C signals prevent them from interfering with one another, thereby improving picture quality (especially in luminance).
This set is equipped with two S video input jacks through which these separated signals can be input directly.
Connect one of the two S video output jacks on the VTR to the S video input on this set.

1-5. HOW TO ATTACH THE SPEAKERS

	KV-E 2511 D
1	Place the woofer on the rear cover of the set.
2	Attach the right and left speakers on the sides of the set.
3	Connect the speaker cords of the woofer to the speaker terminals on the right and left speakers: connect the black cord to the – (black) terminal and the black and white cord to the + (red) terminal.
4	Connect the left speaker cord to the L/G/S/I terminal and the right speaker cord to the R/D/D/D terminal on the rear of the TV set.

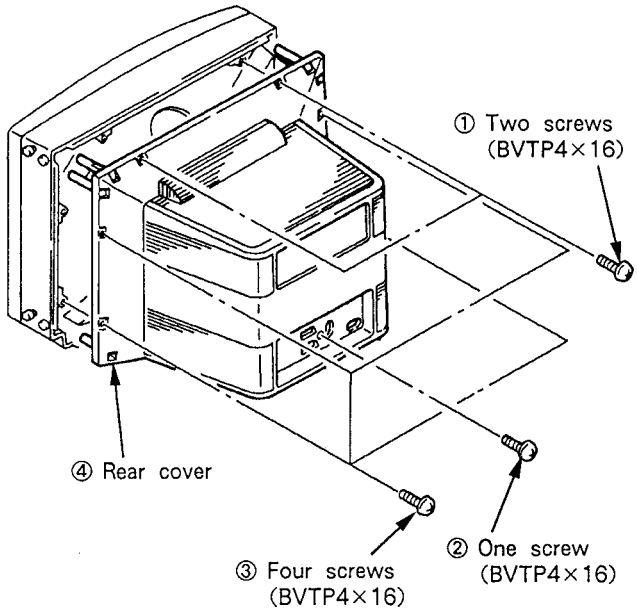
Note

Make sure that the set is turned off when you install the speakers.

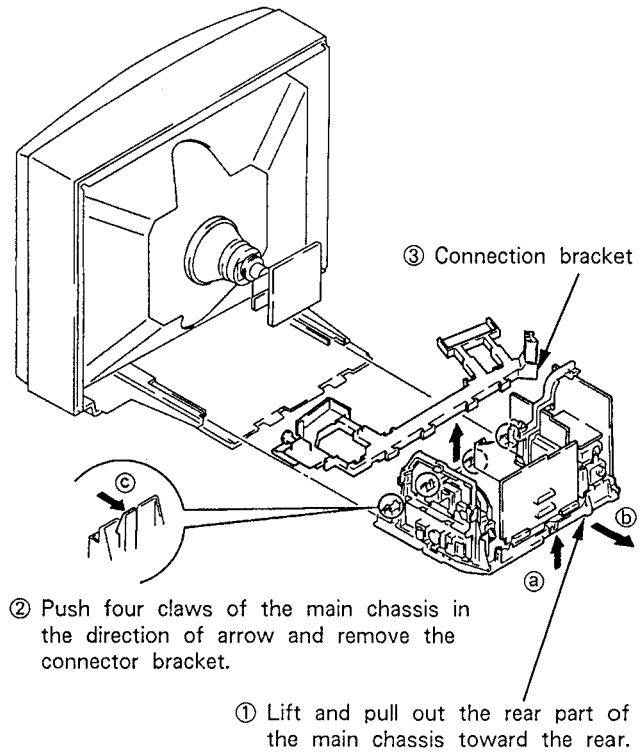


SECTION 2
DISASSEMBLY

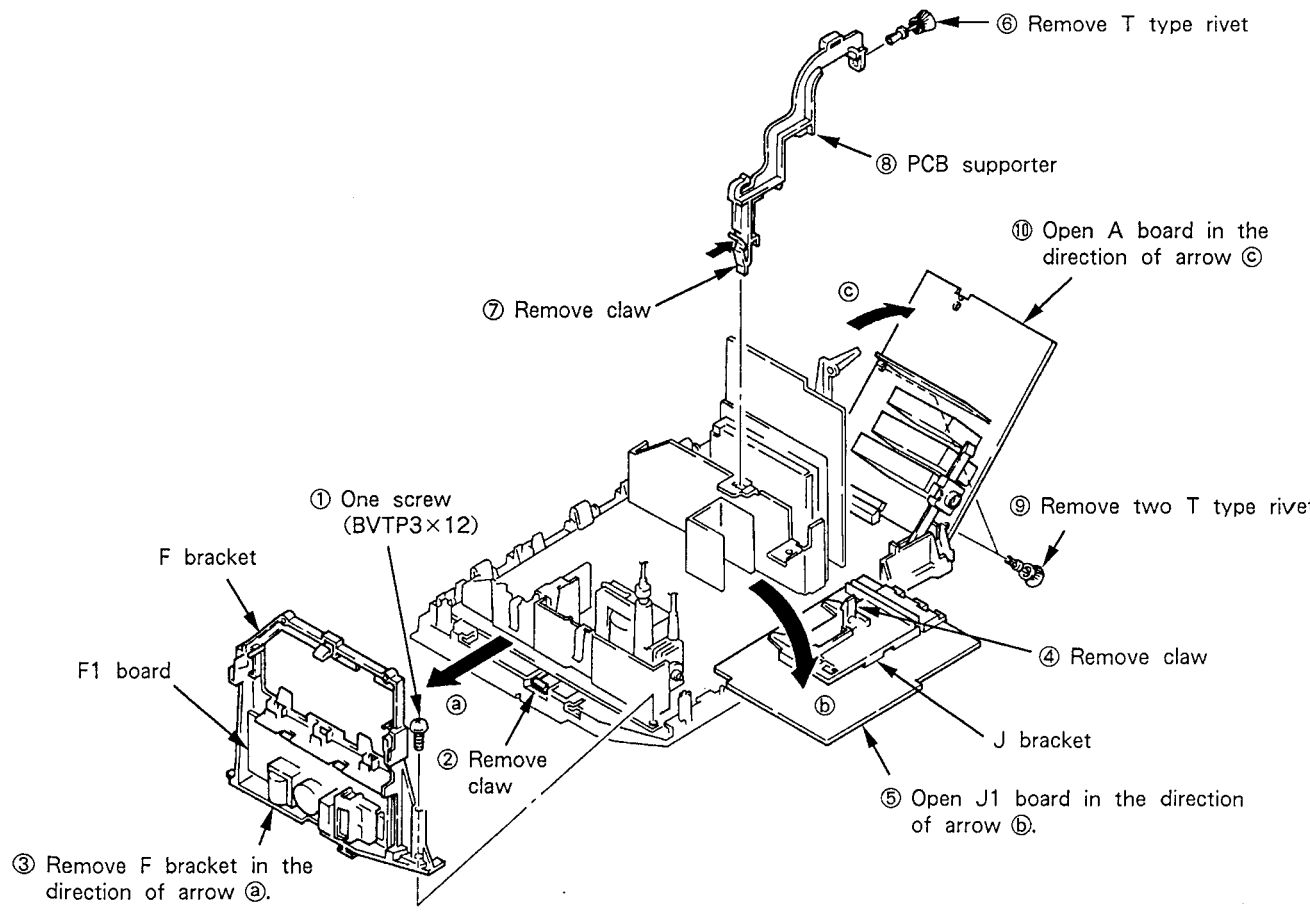
2-1. REAR COVER REMOVAL



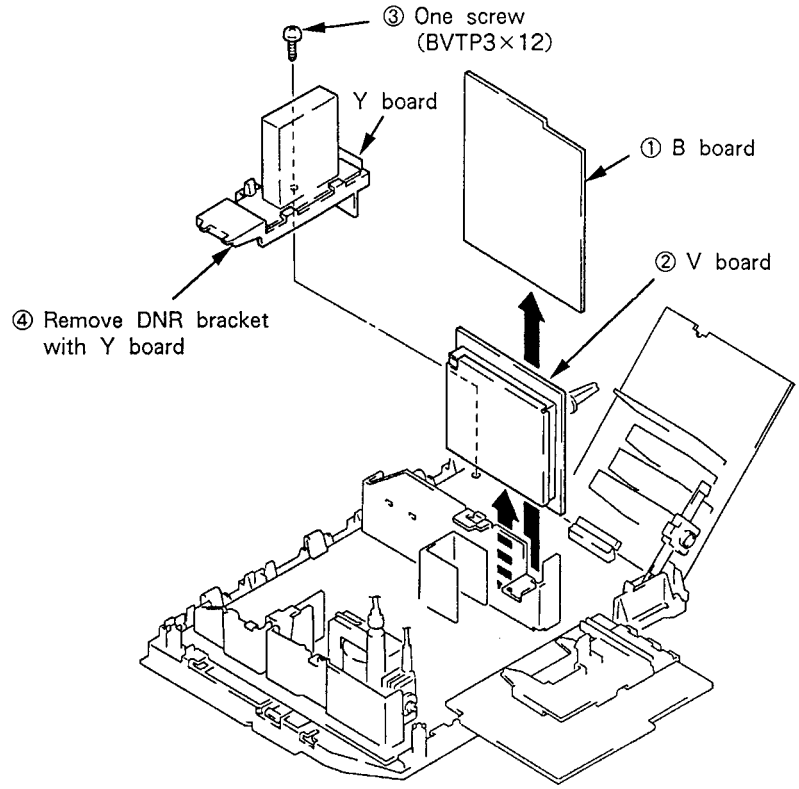
2-2. CHASSIS ASSY REMOVAL


③ Connection bracket
ⓒ
ⓑ
ⓐ
② Push four claws of the main chassis in the direction of arrow and remove the connector bracket.
① Lift and pull out the rear part of the main chassis toward the rear.

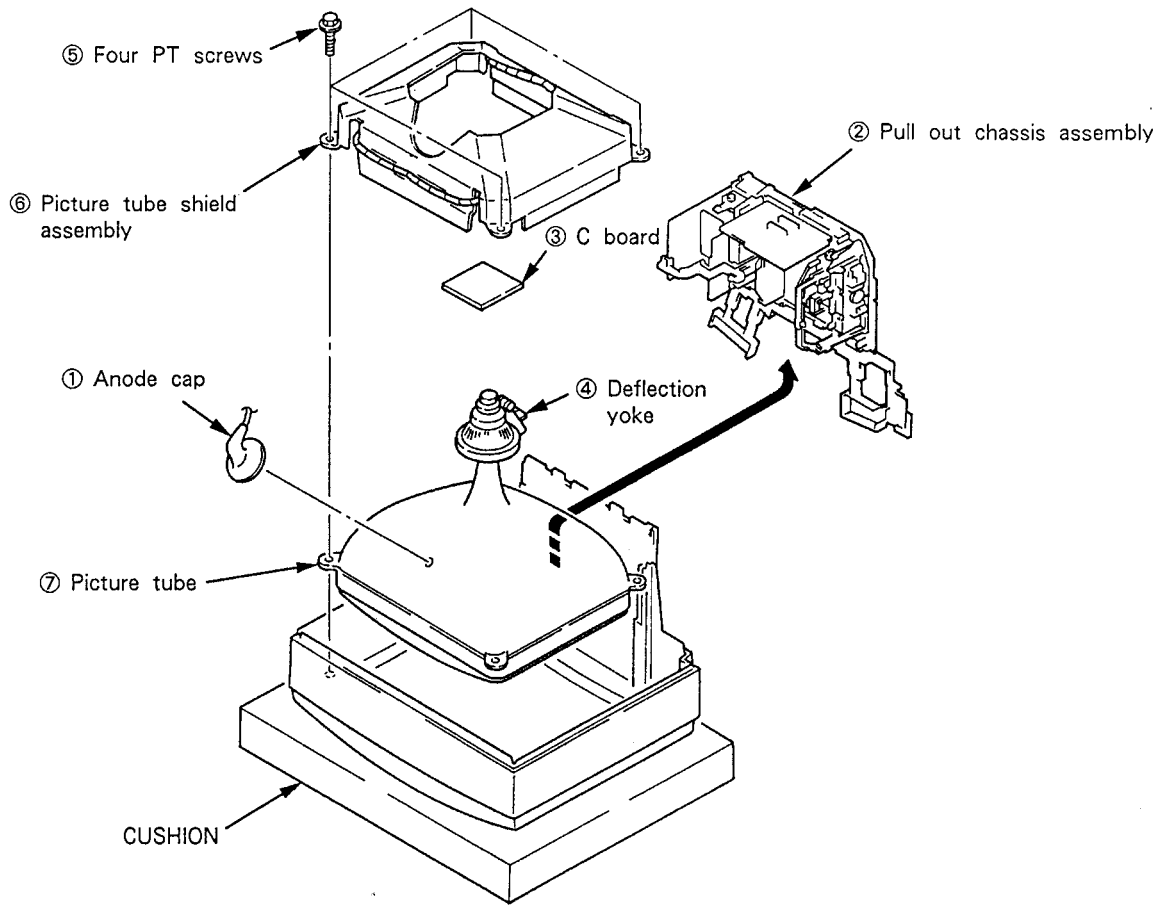
2-3. A, J1 BOARDS OPENING AND F1 BOARD REMOVAL



2-4. V, B AND Y BOARDS REMOVAL

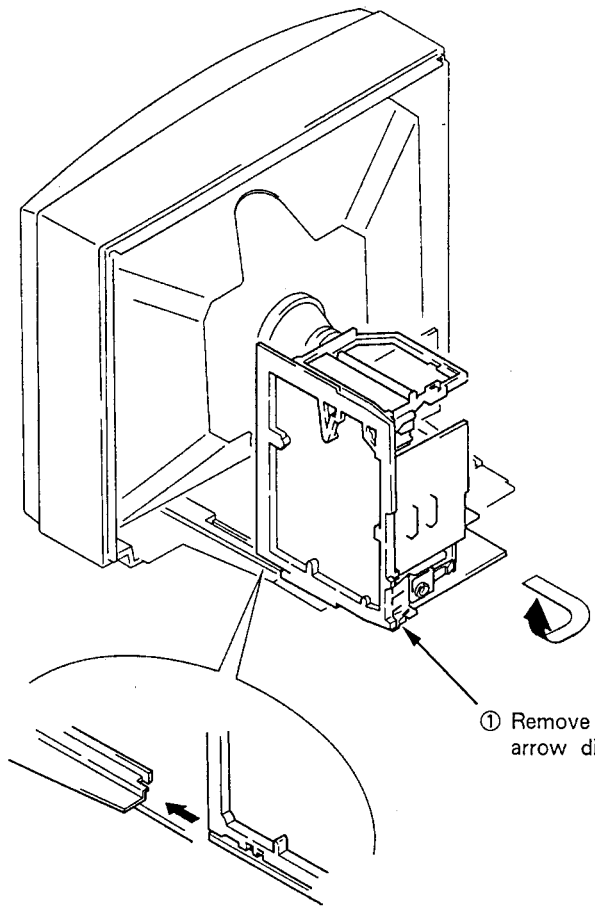


2-5. PICTURE TUBE REMOVAL



2-6. SERVICE POSITION

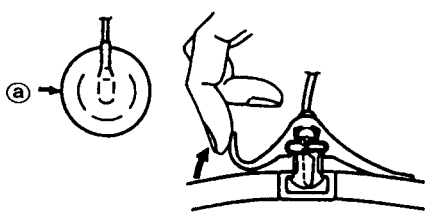
*Remove the connector bracket and then perform the following servicing (refer to 2-2. CHASSIS ASSEMBLY REMOVAL).



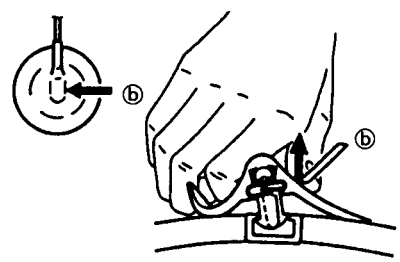
① Remove main chassis in the arrow direction

② Install the main chassis on to the holder

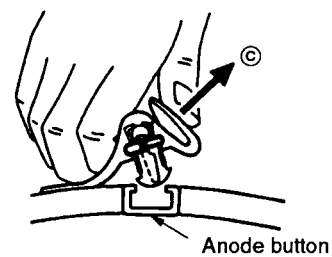
- **REMOVAL OF ANODE-CAP**
- **REMOVING PROCEDURES**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



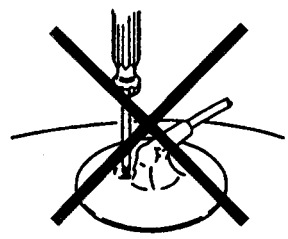
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

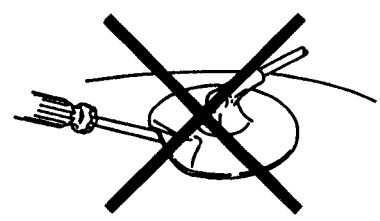


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

- **HOW TO HANDLE AN ANODE-CAP**

① Don't hurt the surface of anode-caps with sharp shaped material !
② Don't press the rubber hardly not to hurt inside of anode-caps !
A metal fitting called as shatter-hook terminal is built in the rubber.
③ Don't turn the foot of rubber over hardly !
The shatter-hook terminal will stick out or hurt the rubber.





SECTION 3
SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new receiver tube is installed, carry out the following adjustments.
- Unless there is specific instruction to the contrary, carry out these adjustments with the rated power supply.
  Unless there is specific instruction to the contrary, set the controls and switches this way :
  ◑ Contrast ..... 80% (or remote control normal)
  ☼ Brightness 50%

Carry out the following adjustments in this order :
1. Beam landing
2. Convergence
3. Focus
4. White balance

Note : Testing equipment required
1. Color bar/pattern generator
2. Degausser
3. DC power supply
4. Digital multimeter
5. Oscilloscope

Preparations

- In order to reduce the influence of geomagnetism on the set's PICTURE TUBE face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input the raster signal with the pattern generator.
   Contras
   Brightness normale
2. Set the pattern generator raster signal to red.
3. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side. (See Figures 3-1 through 3-3)
4. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1)
5. Switch the raster signal to blue, then to green and verify the condition.
6. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
7. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Figure 3-4)

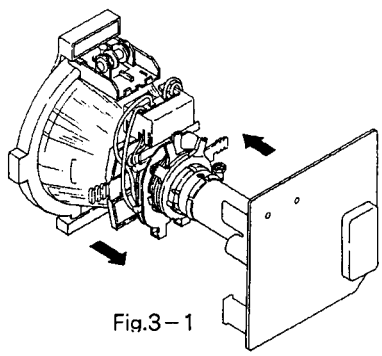


Fig.3-1

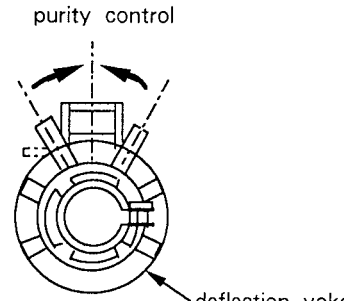


Fig.3-2

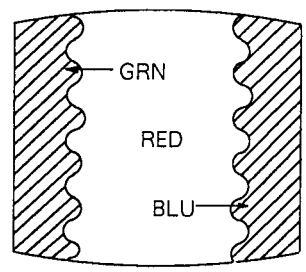


Fig.3-3

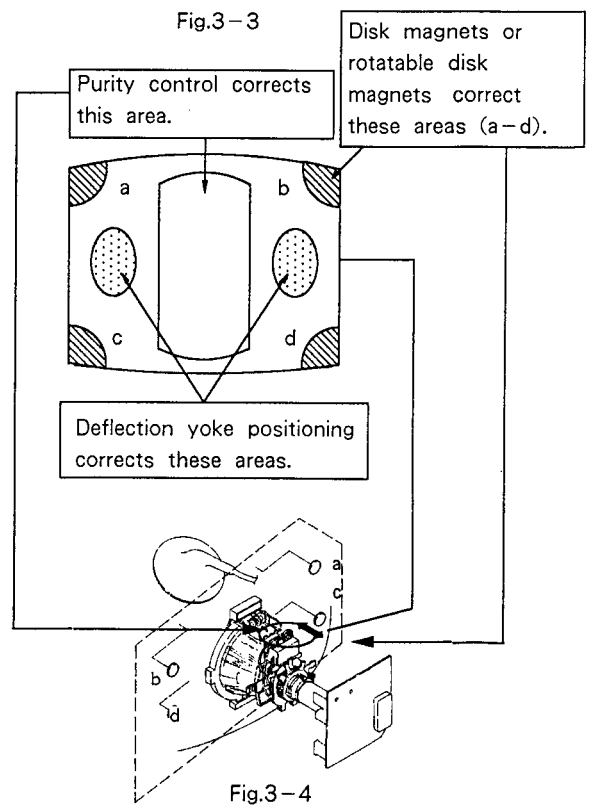


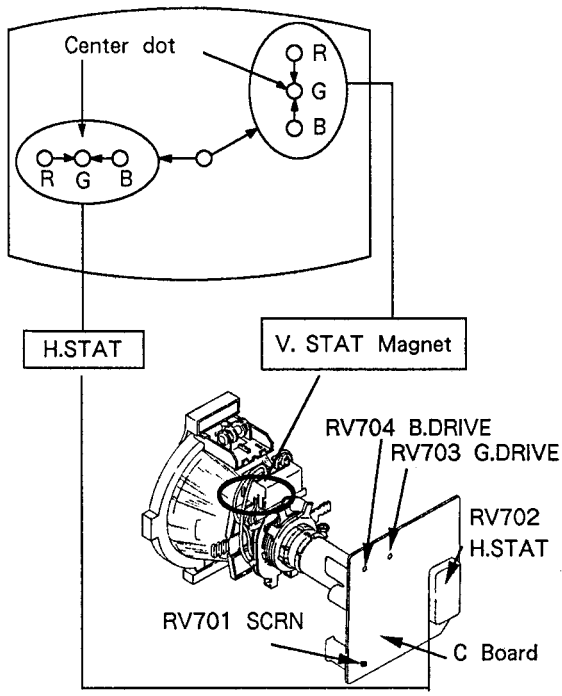
Fig.3-4

3-2. CONVERGENCE

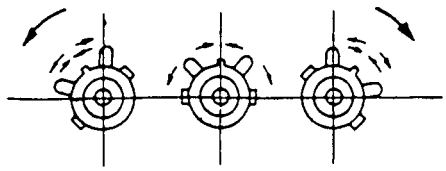
Preparations :

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

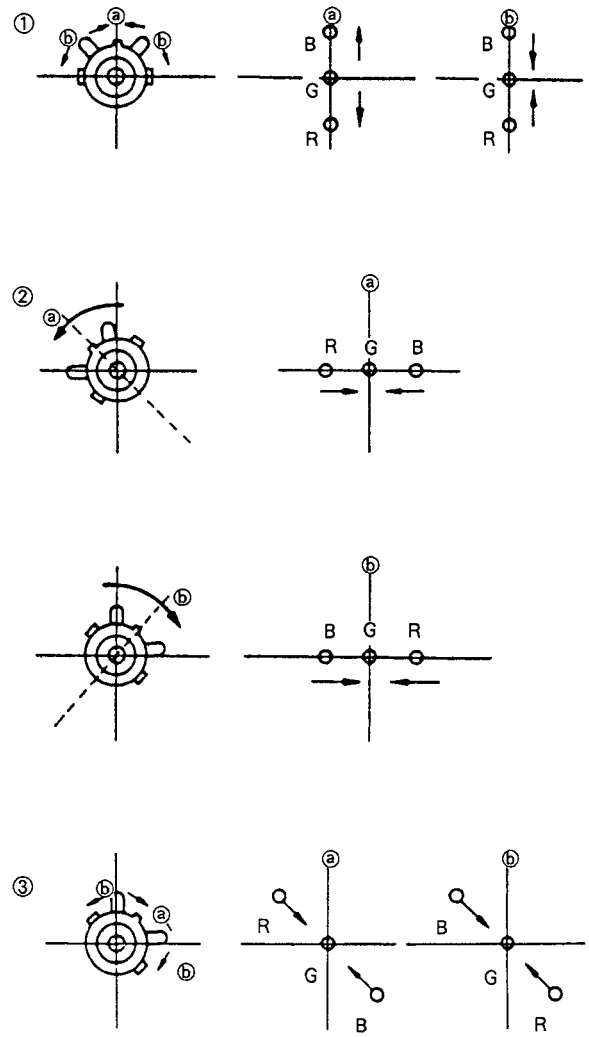
(1) Horizontal and vertical static convergence



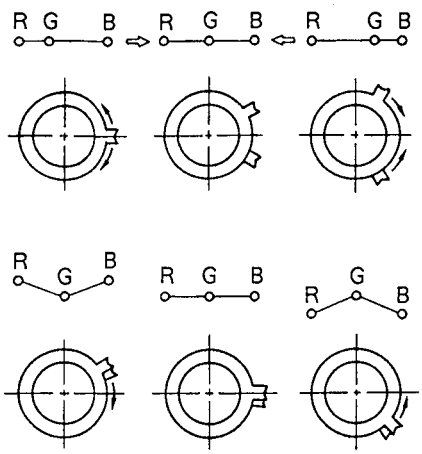
1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor can not bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other's settings.)
   - Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



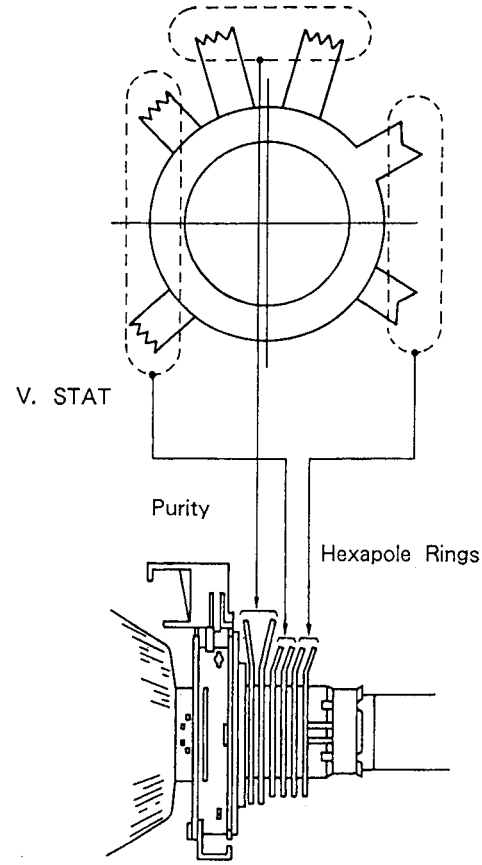
4. If the V.STAT magnet is moved in the direction of the ⓐ and ⓑ arrows, the red, green, and blue points move as shown below.



● Operation of Hexapole Ringed Magnet



The respective dot operations resulting from the operation of each magnet are not completely independent, so be sure to perform adjustment while tracking.
Use the H. STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

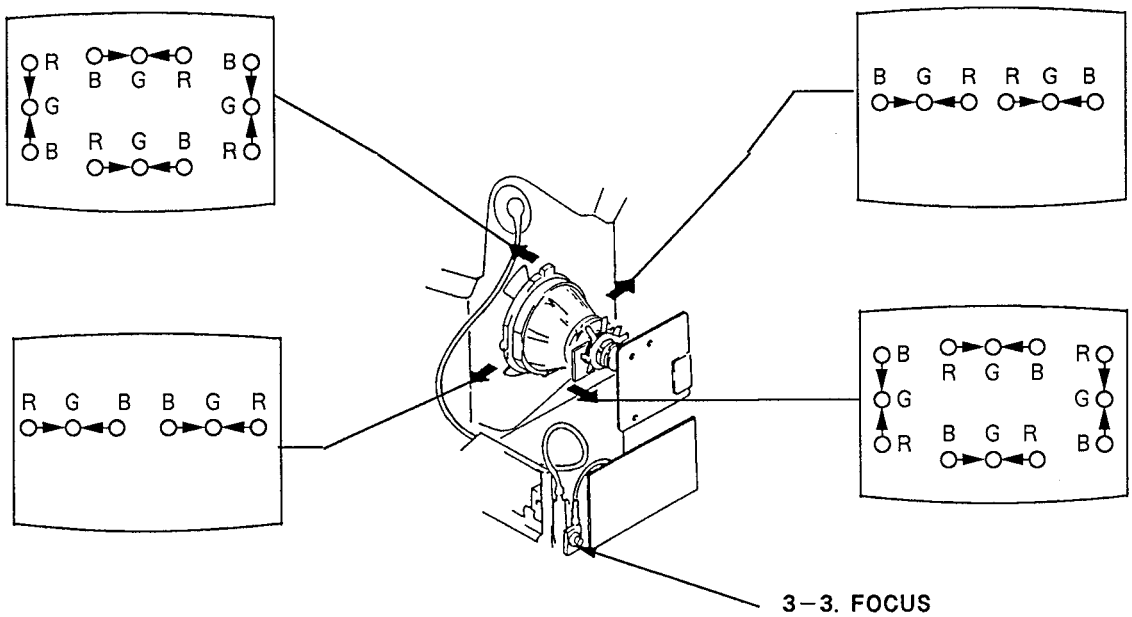


(2) Dynamic convergence adjustment

Preparations

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.

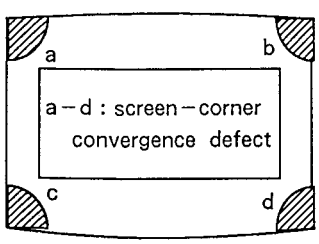
1. Slightly loosen the deflection yoke screws.
2. Remove the deflection yoke spacer.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
4. Tighten the deflection yoke screws.
5. Install the deflection yoke spacer.

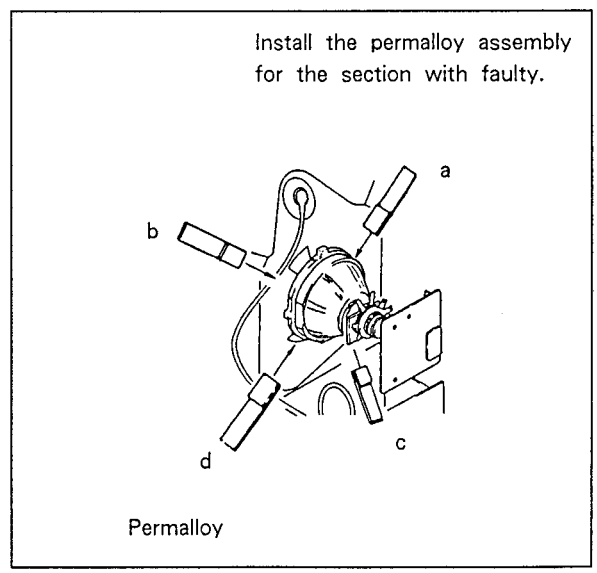


3–3. FOCUS

Adjust the focus to optimize the screen.

(3) Screen corner convergence





3-4. WHITE BALANCE

[Screen G2 setting]

1. Input the dot signal from the pattern generator.
2. Set the picture brightness control to its lowest level.
3. Apply 170 VDC to the R, G, and B cathodes with an external power supply.
4. While watching the picture, adjust G2 control RV701 (Screen) to the point just before the return lines disappear.

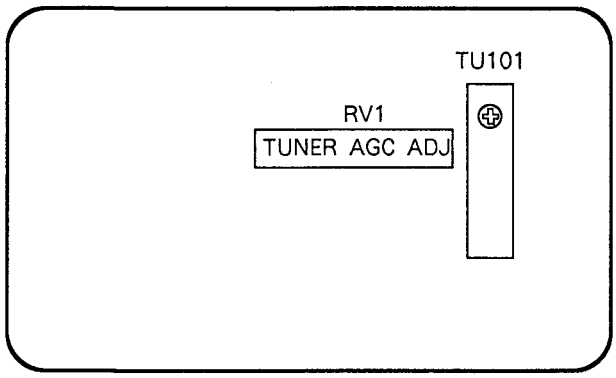
[White balance adjustment]

1. Input an all-white signal from the pattern generator.
2. Set the picture brightness and color controls to their normal levels.
3. Use RV704 (B Drive) and RV703 (G Drive) to adjust the white balance.

In the adjustments below, have the picture color and brightness settings at their normal levels unless there is a specific instruction to the contrary.

SECTION 4
CIRCUIT ADJUSTMENTS

4-1 A BOARD ADJUSTMENTS

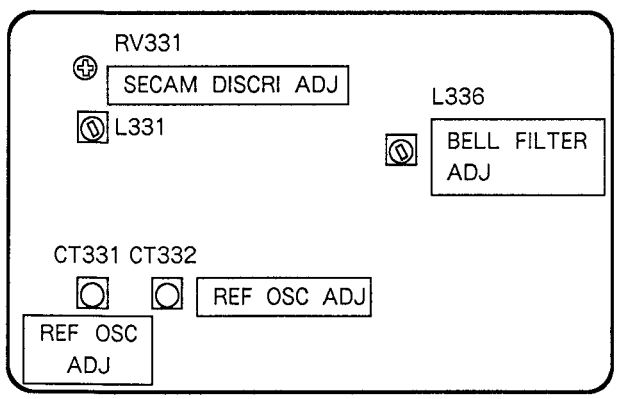


(COMPONENT SIDE)

TUNER AGC ADJUSTMENT (VIF101 RV1)

1. Align with an appropriate signal between stations.
2. Adjust RV1 so that snow noise and cross modulation just disappear from the picture.

4-2. B BOARD ADJUSTMENTS



(COMPONENT SIDE)

REFERENCE OSCILLATOR ADJUSTMENT (CT332 8.8 MHz)

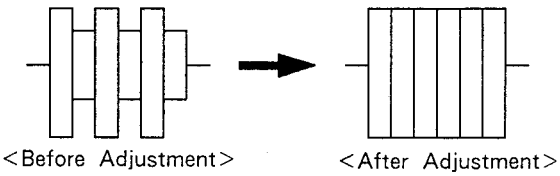
1. Input a PAL color bar signal.
2. Ground Pin ⑰ of IC331.
3. Adjust CT332 to obtain synchronization.

REFERENCE OSCILLATOR ADJUSTMENT (CT331 7.16 MHz)

1. Input an NTSC color bar signal.
2. Ground Pin ⑰ of IC331.
3. Adjust CT331 to obtain synchronization.
4. Remove the justper grounding Pin ⑰ of IC331.

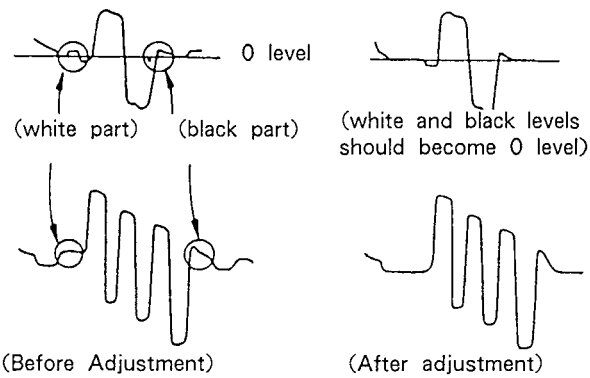
BELL FILTER ADJUSTMRNT (L336)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to the emitter of Q335.
3. Adjust L336 so that the waveform is flat.

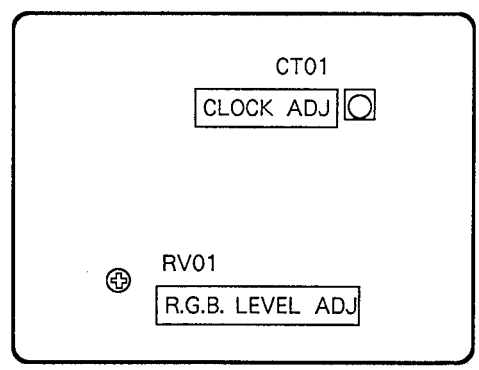


DISCRIMINATION ADJUSTMENT (RV331 and L331)

1. Input a SECAM color bar signal.
2. Connect the oscilloscope to Pin ① of IC331.
3. Adjust RV331 so that the white and black sections of the wave form at Pin ① come to the 0 level.
4. Connect the oscilloscope to Pin ③ of IC331.
5. Adjust L331 so that the white and black sections of the wave form at Pin ③ come to the 0 level.



4-3. V BOARD ADJUSTMENTS



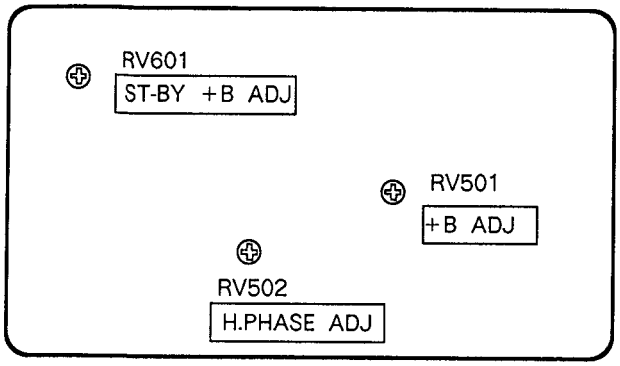
(COMPONENT SIDE)

1. Remove the V-1 connector.
2. Put the system into Text mode.
3. Adjust CT01 so that the picture does not move.

RGB LEVEL ADJUSTMENT (RV01)

1. Maximize the picture setting.
2. Adjust RV01 so that RGB output is 0.75V

4-4. D BOARD ADJUSTMENTS



+B ADJUSTMENT (RV501)

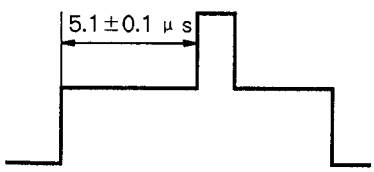
1. Connect the digital multimeter to TP91.
2. Adjust RV501 to obtain 135±3.0V.

ST-BY +B ADJUSTMENT (RV601)

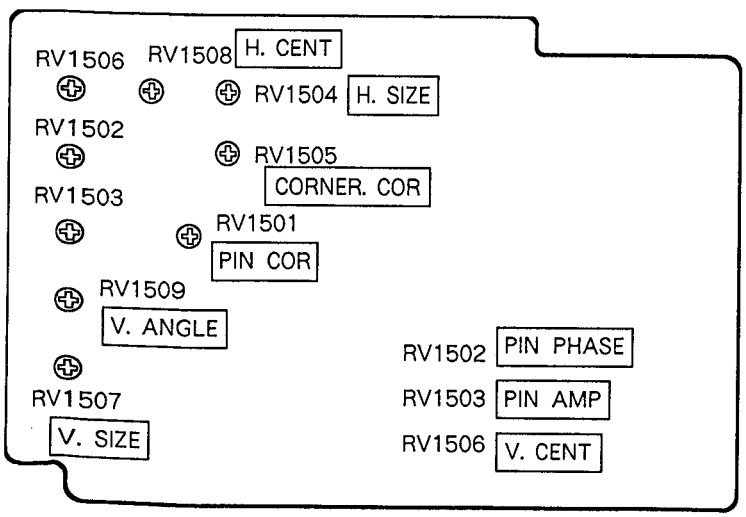
1. Put the system into ⏻ standby mode (remote commander).
2. Connect the digital multimeter to TP91.
3. Adjust RV601 to obtain 135±3V.
4. Take the system out of ⏻ standby mode (remote commander).

H.PHASE ADJUSTMENT (RV502)

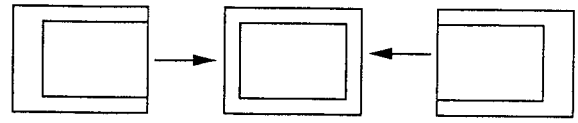
1. Input a PAL color bar signal.
2. Set the picture and brightness controls to their normal levels.
3. Set RV1508 (H. CENT) to its mechanical canter.
4. Connect the oscilloscope to pin ⑪ (SCP) of IC501.
5. Rotate RV502 to adjust to 5.1±0.1 μs.



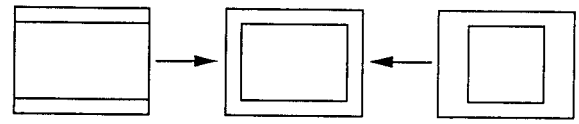
4-5. J1 BOARD ADJUSTMENTS



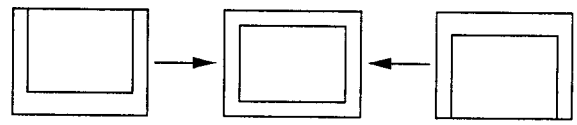
RV1508
H. CENT (HORIZONTAL CENTER)



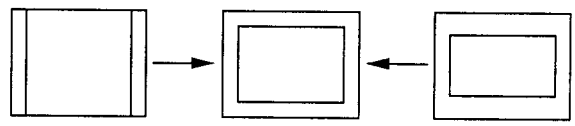
RV1504
H. SIZE (HORIZONTAL SIZE)



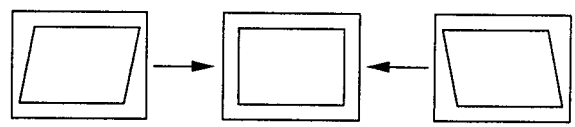
RV1506
V. CENT (VERTICAL CENTER)



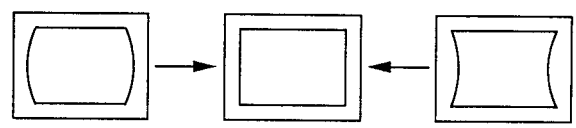
RV1507
V. SIZE (VERTICAL SIZE)



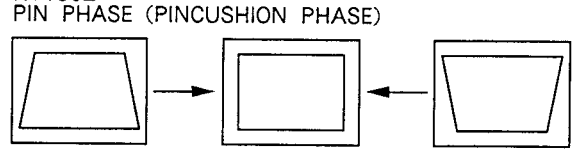
RV1509
V. ANGLE (VERTICAL ANGLE)



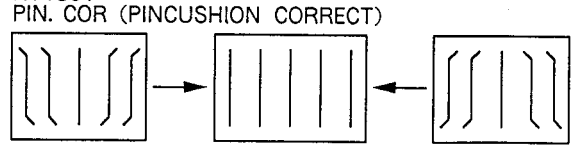
RV1503
PIN AMP (PINCUSHION AMPLIFIER)



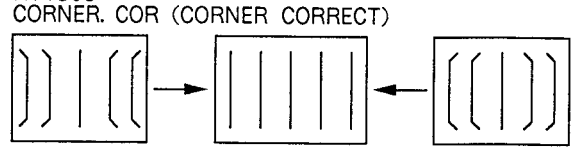
RV1502
PIN PHASE (PINCUSHION PHASE)



RV1501
PIN. COR (PINCUSHION CORRECT)



RV1505
CORNER. COR (CORNER CORRECT)



4-6. SECONDARY ADJUSTMENTS

SUB BRIGHTNESS ADJUSTMENT

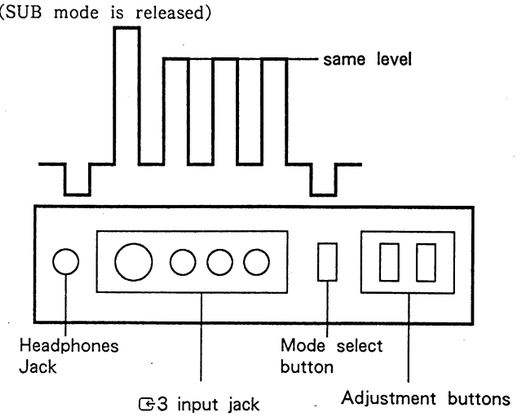
1. Set the system to receive a test color pattern.
2. Press →•← on the remote commander to put the system into normal mode.
3. Switch off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Minimize the ◑ contrast setting.
6. Adjust the ☼ brightness control so that the qray scale O IRE section is cut off completely and the 20 IRE section is barely qlowing.
7. Depress the ◇ (store) button of the remote commander. (SUB mode is released)

If there is no test color pattern

1. Set the system to receive a color pattern.
2. Press on the remote commander to put system into normal made.
   Set the ◑ color to its normal state.
3. −5.are the same as above.
6. Since 20 IRE is nearly blue, adjust the ☼ brightness control so that the blue barely qlows.
7. is the same as adove.
8. Press →•← on the remote commander to put the system into normal mode.

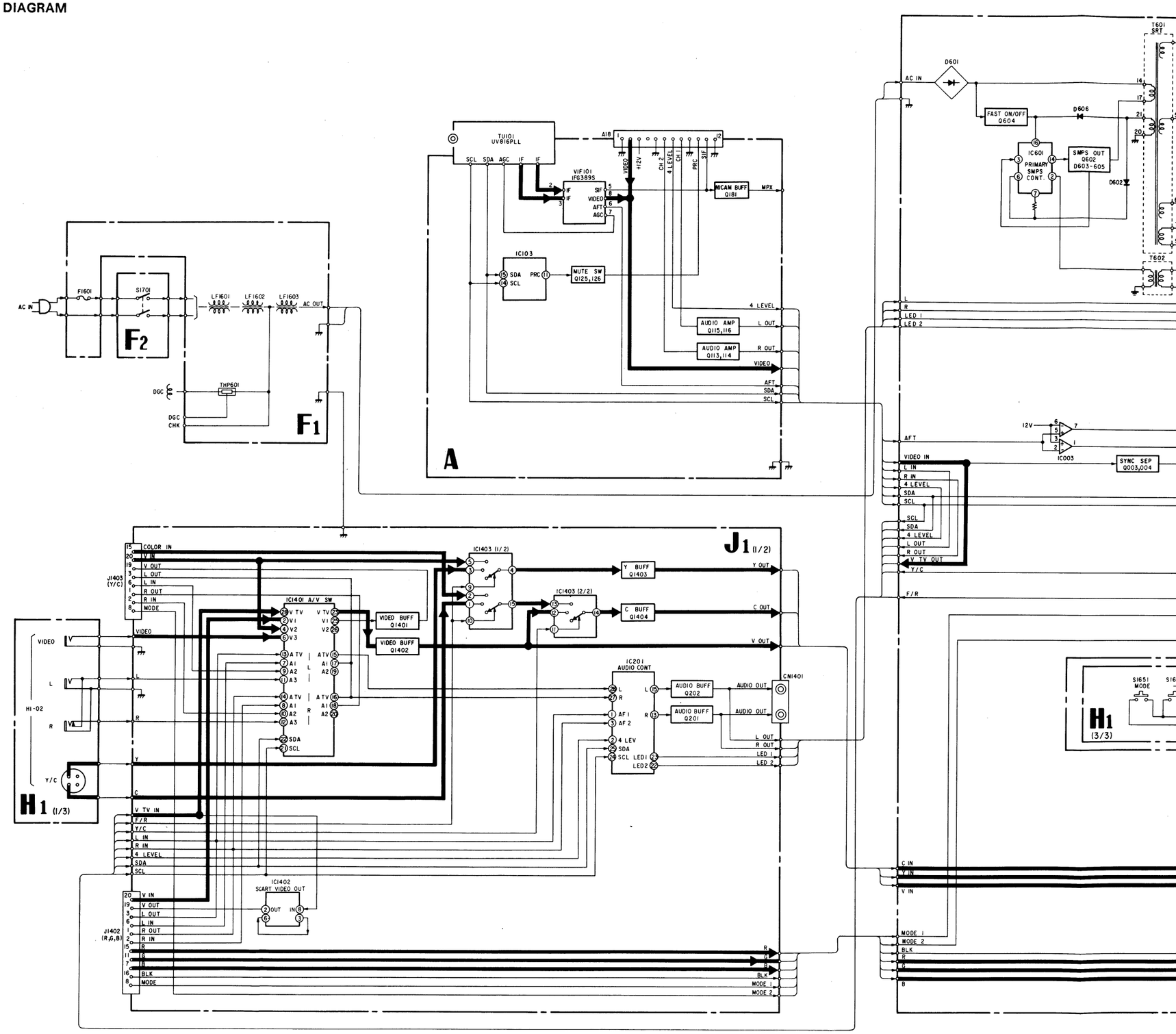
SUB COLOR ADJUSTMENT

1. Set the system to receive color bars.
2. Press →•← on the remote commander to put the system into normal mode.
3. Cut off the power.
4. While depressing the adjusting buttons + and − simultaneusly, turn on the power. (SUB mode is obtained)
5. Adjust the color control so that the B out wave form (Pin ② of C board connector CNC72) is as shown in the figure below.
6. Depress the ◇ (store) button of the remote commander. (SUB mode is released)

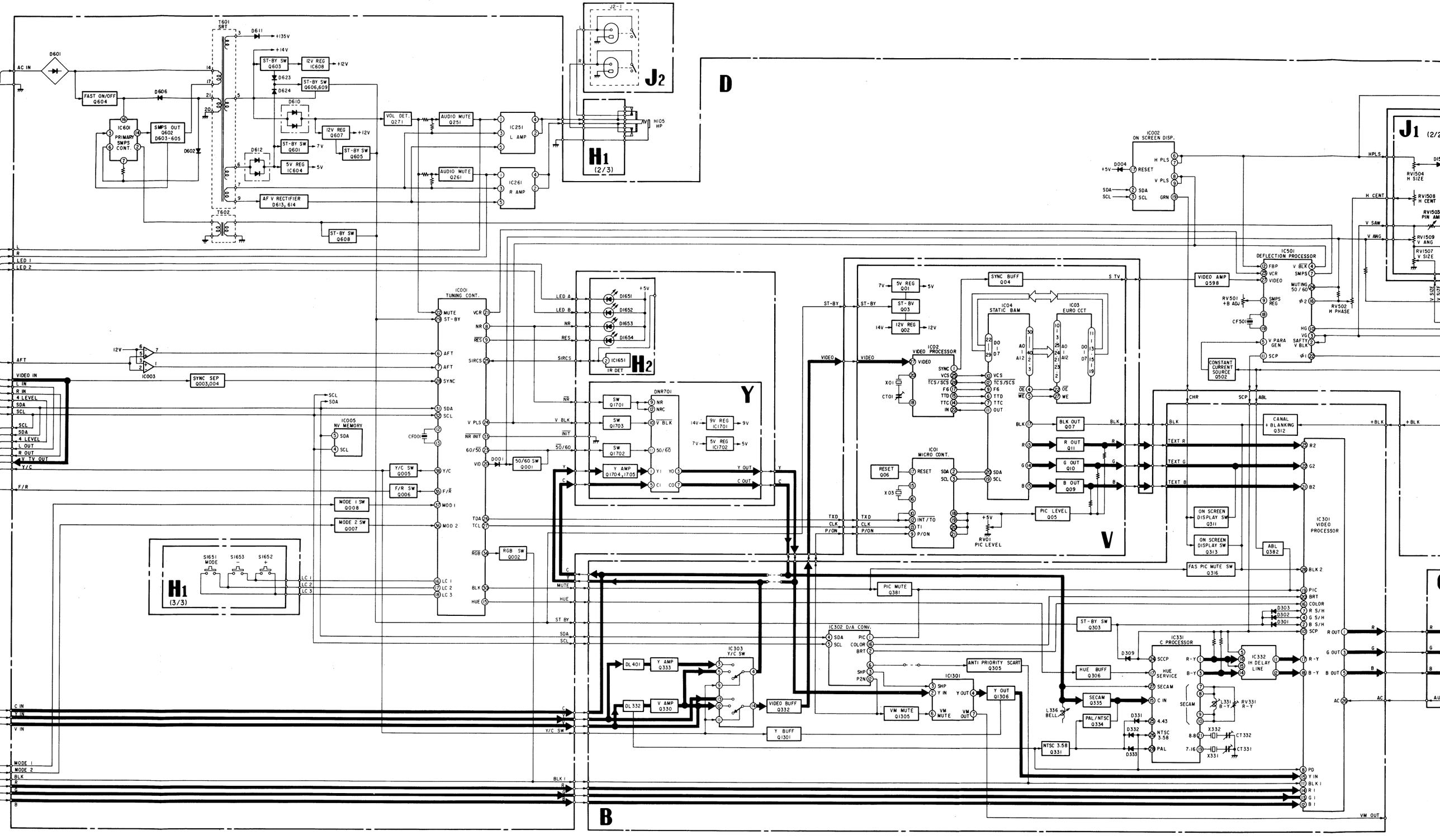


SECTION 5 DIAGRAMS

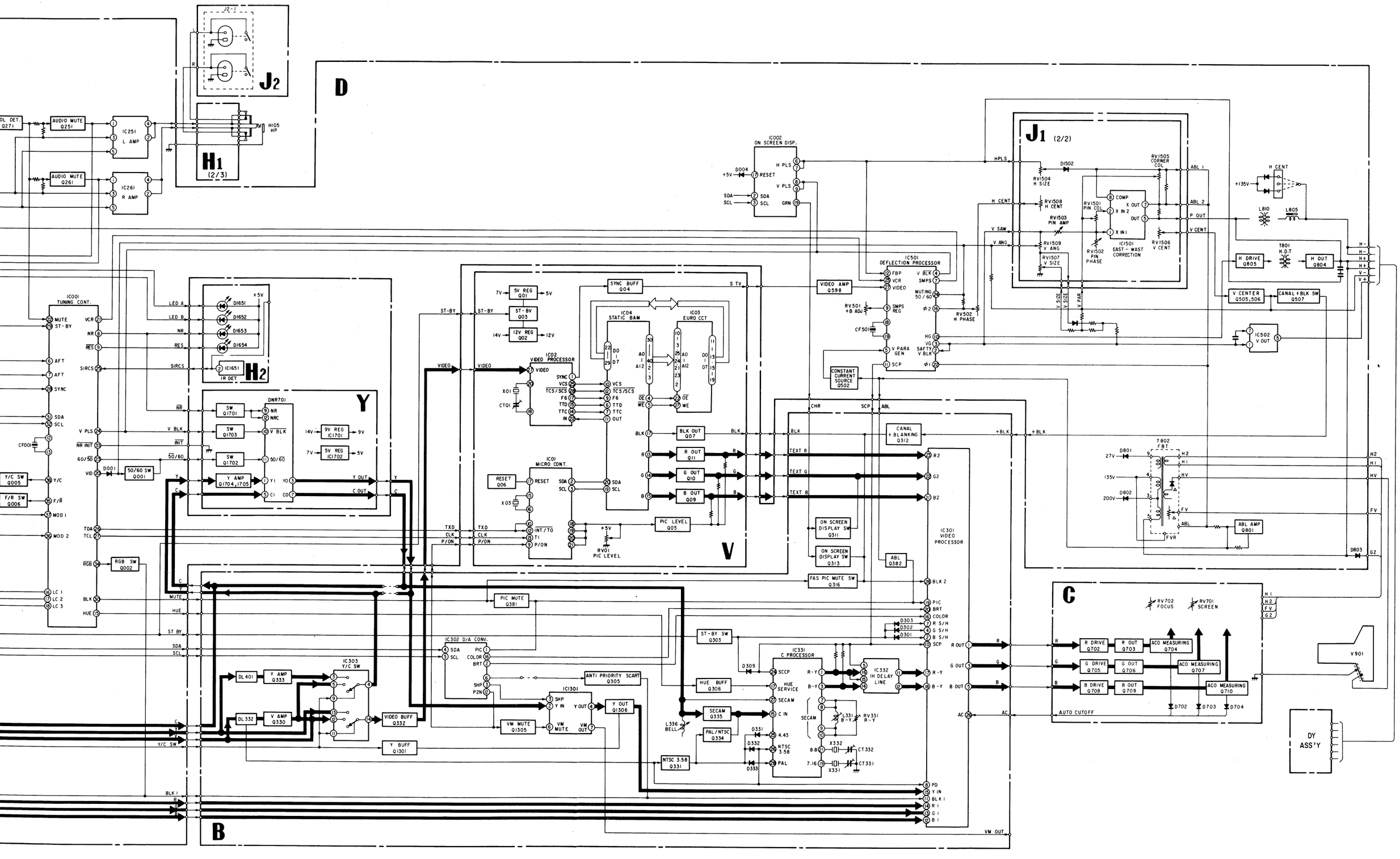
5-1. BLOCK DIAGRAM



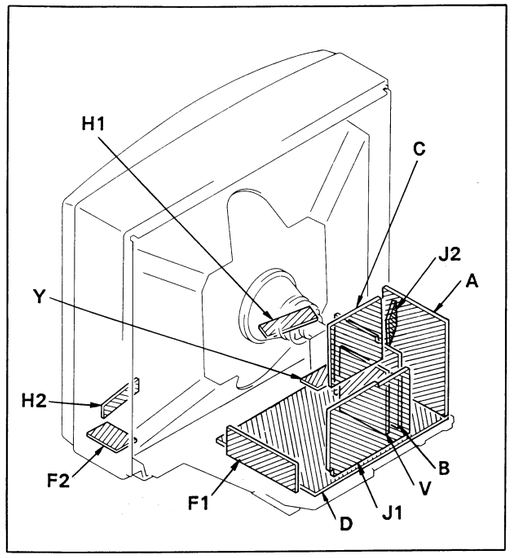
KV-E2511D
RM-689



KV-E2511D
RM-689
KV-E2511D
RM-689



5-2. CIRCUIT BOARDS LOCATION



Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note :

- All capacitors are in μF unless otherwise noted.
  pF : μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm Rating electrical power : 1/4W

- Chip resistor is in 1/10W.
- All resistors are in ohms. kΩ = 1000Ω, MΩ = 1000k Ω
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B.unless otherwise noted.
- All voltages are in V.
- Readings are taken with a 10MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerances.
- : B + line.
- : signal path.

Reference information

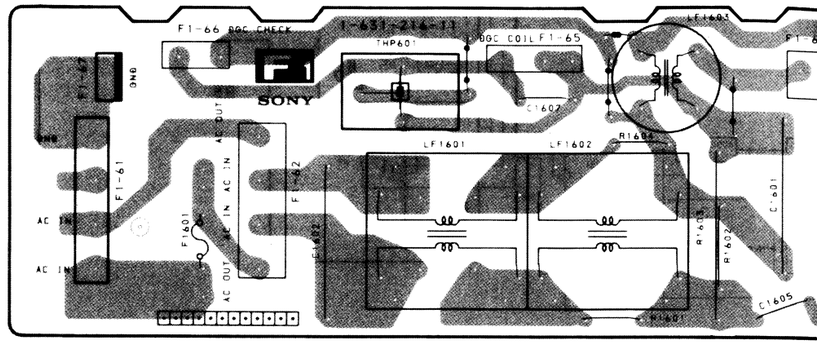
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

KV-E2511D
RM-689
KV-E2511D
RM-689

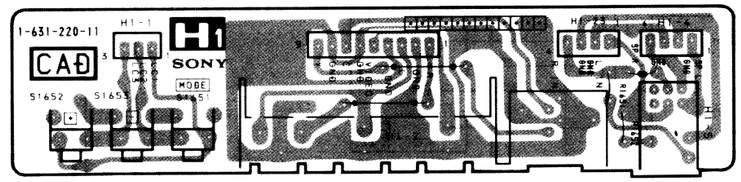
5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS —Conductor Side—

F1 [LINE FILTER, DGC] **F2** [POWER SWITCH] **H1** [CONTROL SW HEADPHONE

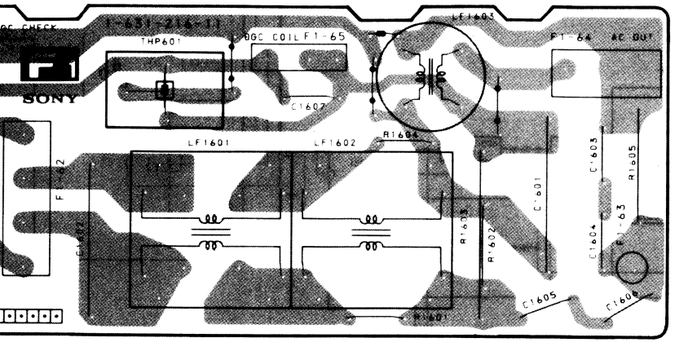
—F1 Board—

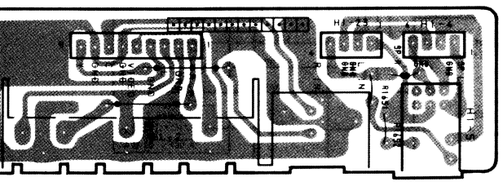


—H1 Board—

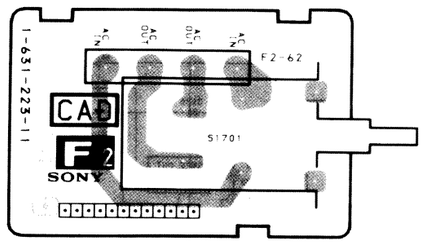


C] **F2** [POWER SWITCH] **H1** [CONTROL SW, AV INPUT, HEADPHONE] **H2** [SIRCS RECEIVER, INDICATOR] **A** [TUNER, VIF SIF] **J1** [AUDIO CONTROL, AV INPUT, SCART VIDEO OUT, EAST-WEST CORRCTION] **J2** [SPEAKER TERMINAL] **Y** [NOISE REDUCTION]

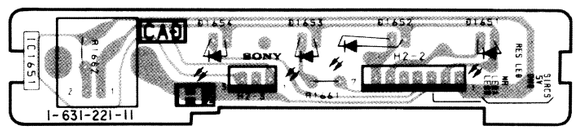




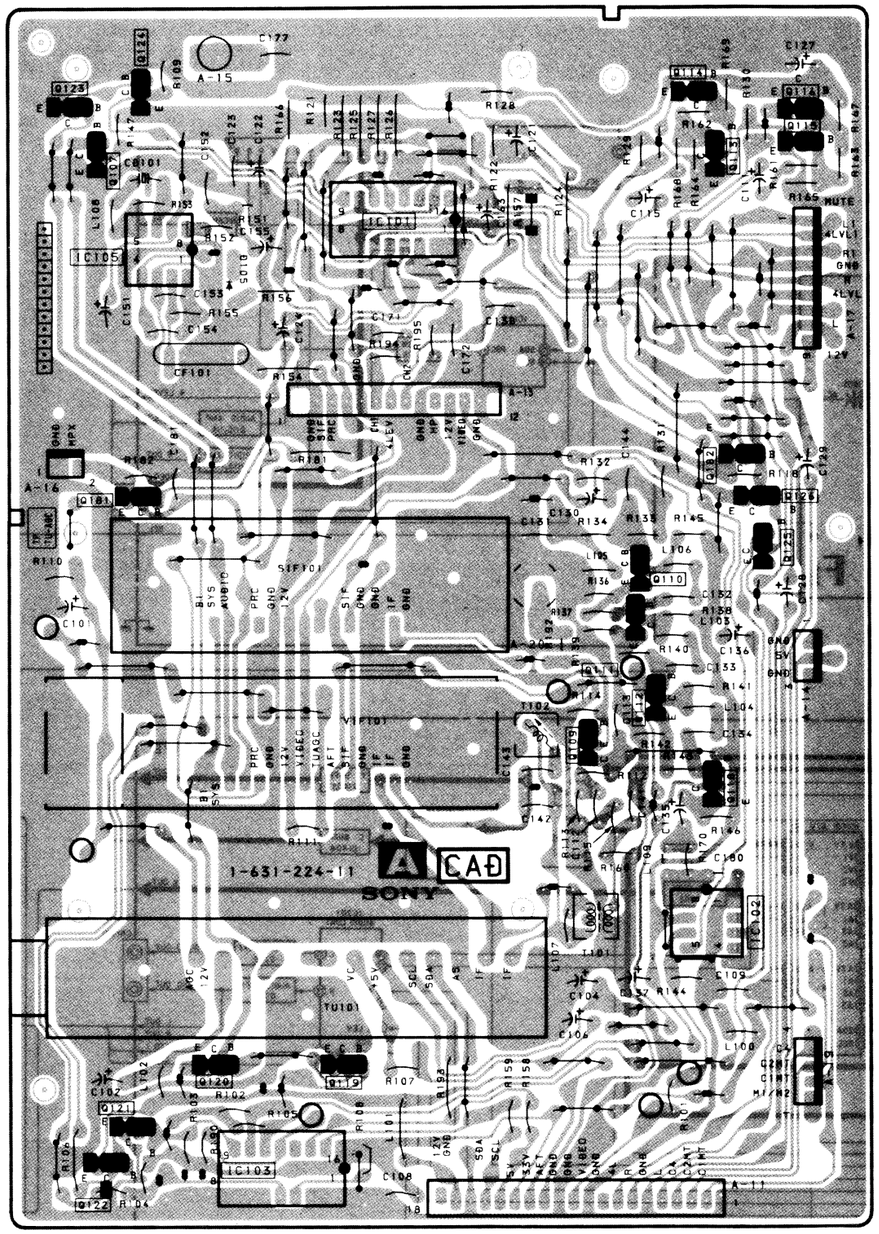
—F2 Board—



—H2 Board—

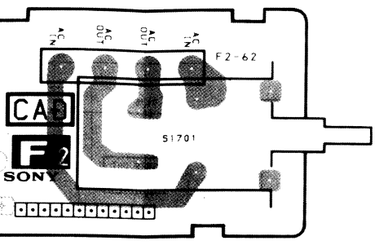


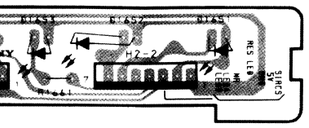
—A Board—



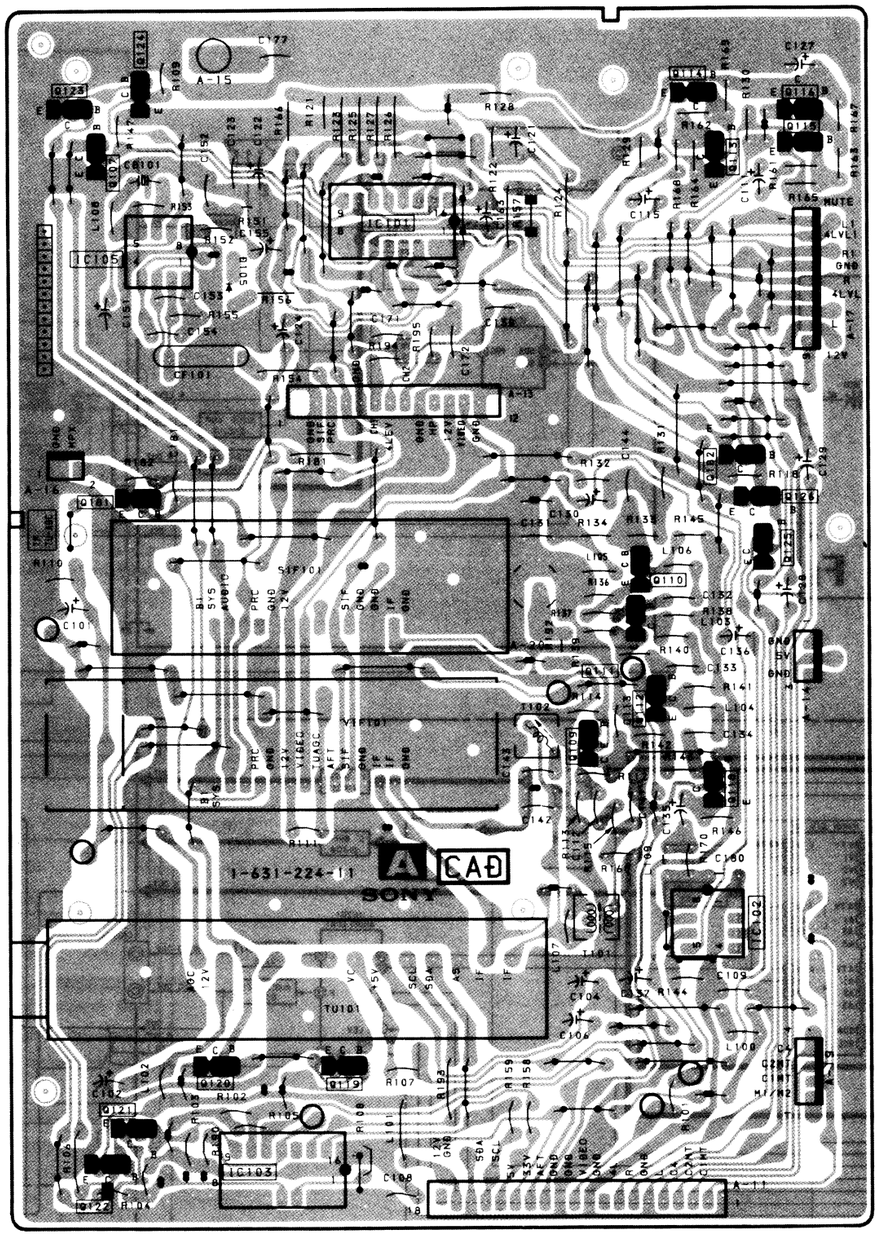
SIRCS RECEIVER, INDICATOR | A | TUNER, VIF SIF | J1 | AUDIO CONTROL, AV INPUT, SCART VIDEO OUT, EAST-WEST CORRCTION | J2 | SPEAKER TERMINAL | Y | NOISE REDUCTION

2 Board—

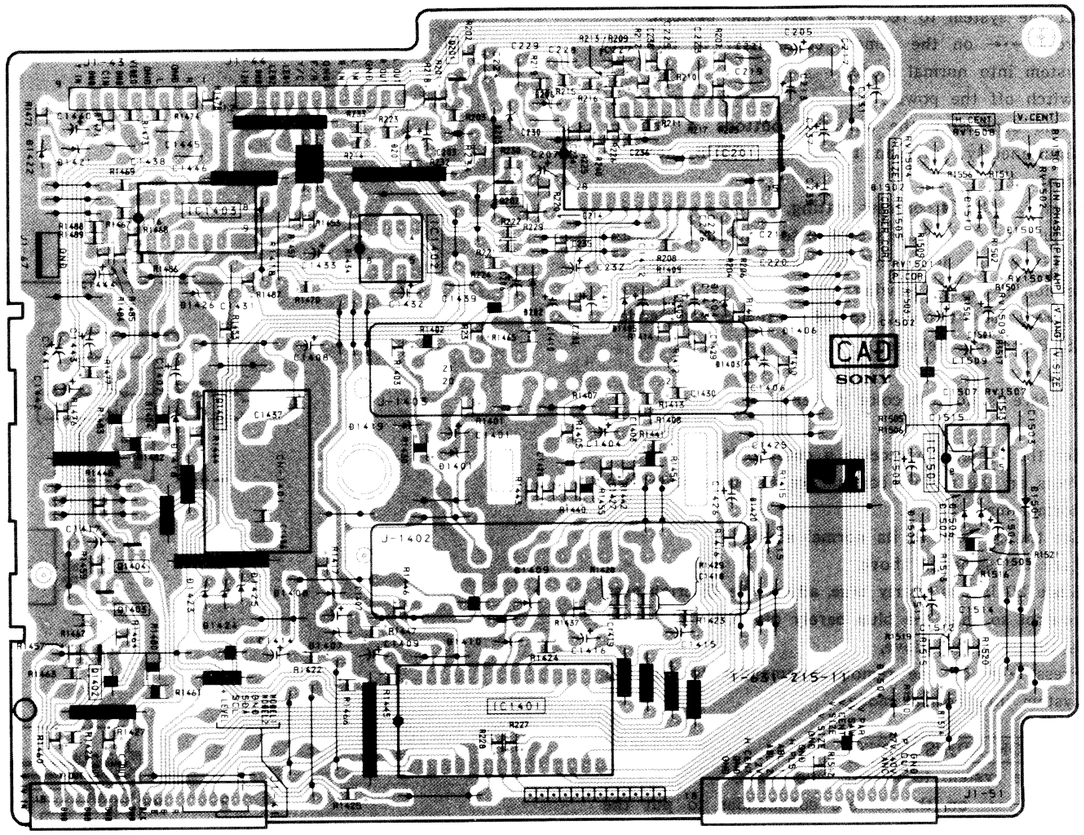




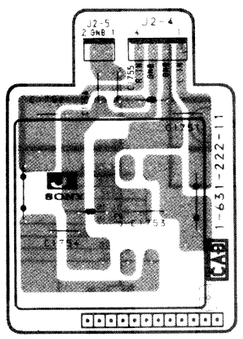
—A Board—



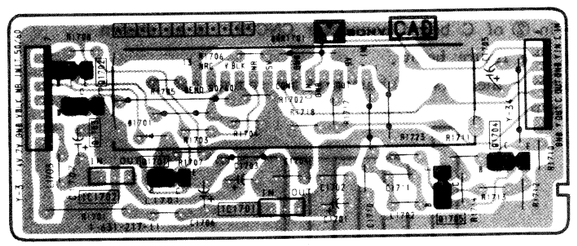
—J1 Board—

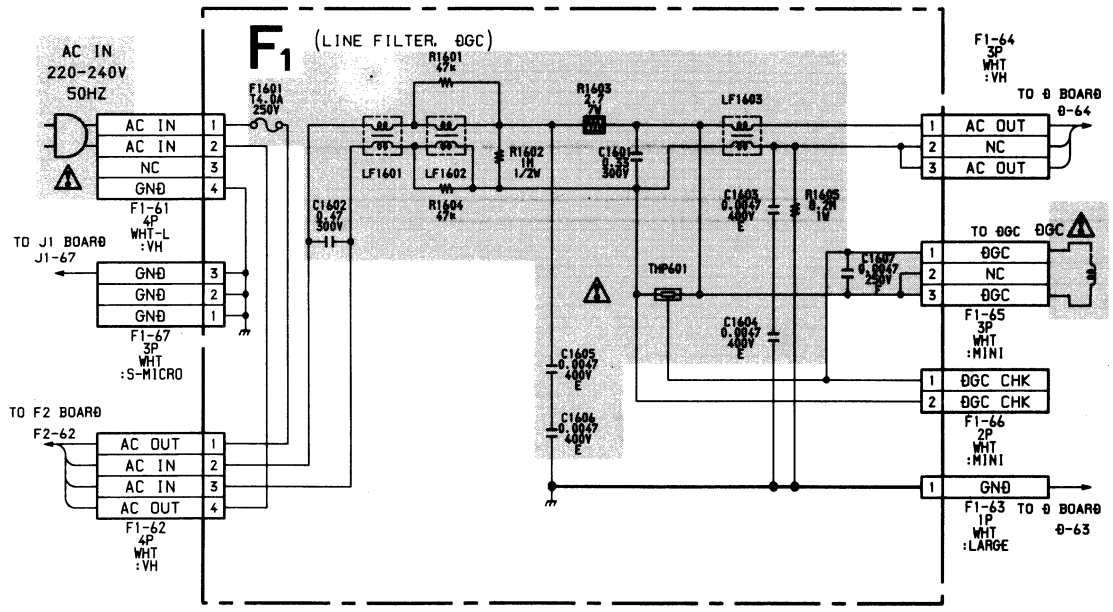


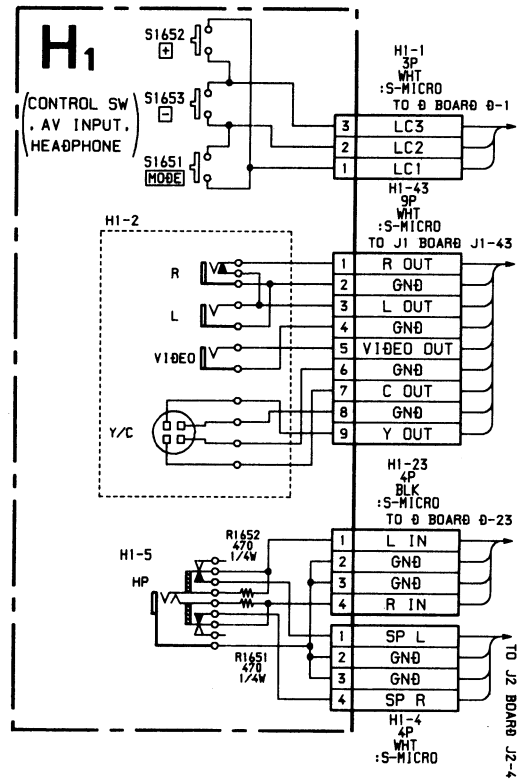
—J2 Board—

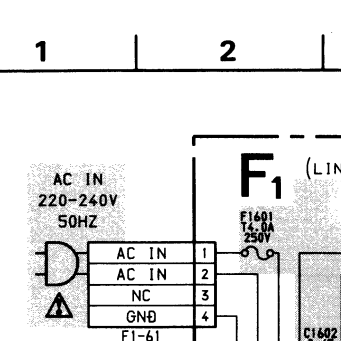


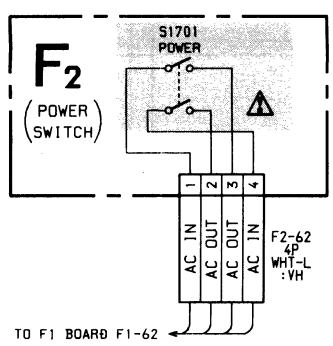
—Y Board—

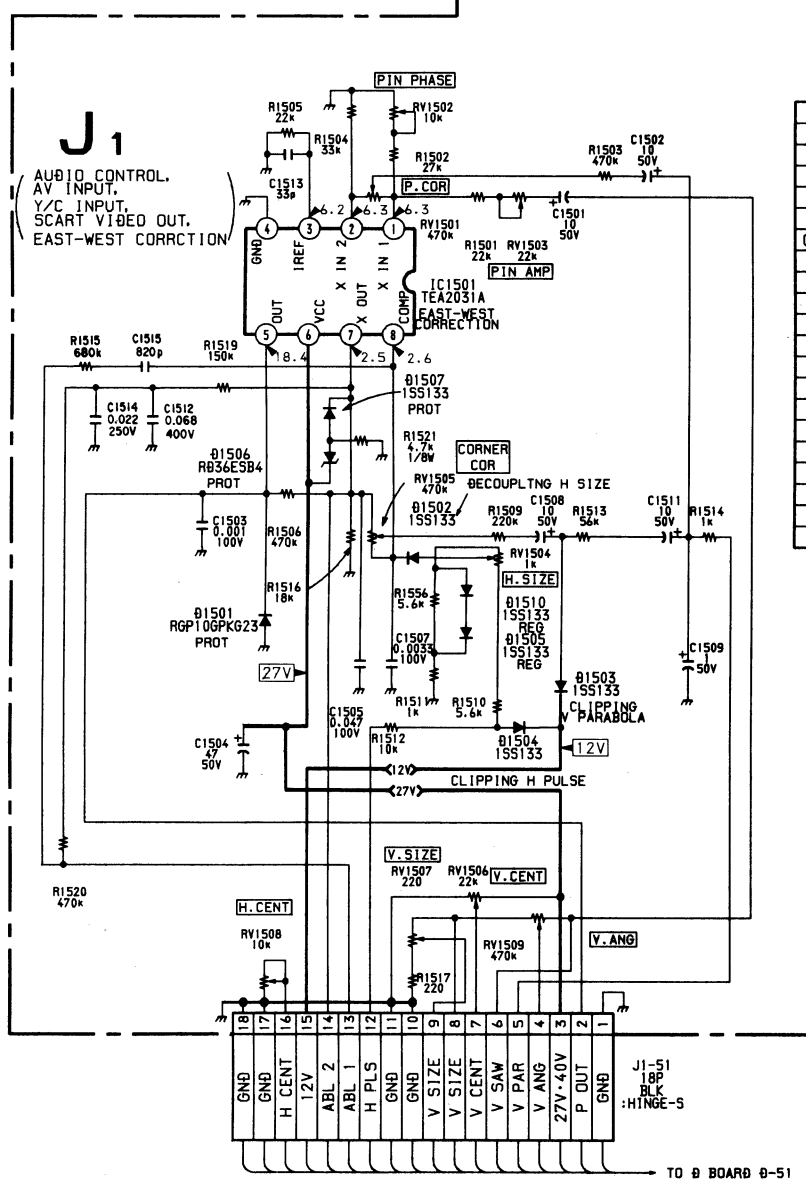



F1
(LINE FILTER, ΘGC)
AC IN
220-240V
50HZ
F1601
T4.0A
250V
R1601
47k
R1603
2.7
1W
LF1603
LF1601
LF1602
R1602
1Ω
1/2W
R1604
47k
C1601
0.33
300V
C1602
0.47
300V
C1603
0.0047
400V
E
R1605
0.2Ω
1W
C1607
0.0047
250V
P
THP601
C1604
0.0047
400V
E
C1605
0.0047
400V
E
C1606
0.0047
400V
E
AC IN
AC IN
NC
GNΘ
F1-61
4P
WHT-L
:VH
TO J1 BOARΘ
J1-67
GNΘ
GNΘ
GNΘ
F1-67
3P
WHT
:S-MICRO
TO F2 BOARΘ
F2-62
AC OUT
AC IN
AC IN
AC OUT
F1-62
4P
WHT
:VH
F1-64
3P
WHT
:VH
TO Θ BOARΘ
Θ-64
AC OUT
NC
AC OUT
TO ΘGC
ΘGC
ΘGC
NC
ΘGC
F1-65
3P
WHT
:MINI
ΘGC CHK
ΘGC CHK
F1-66
2P
WHT
:MINI
GNΘ
F1-63
1P
WHT
:LARGE
TO Θ BOARΘ
Θ-63

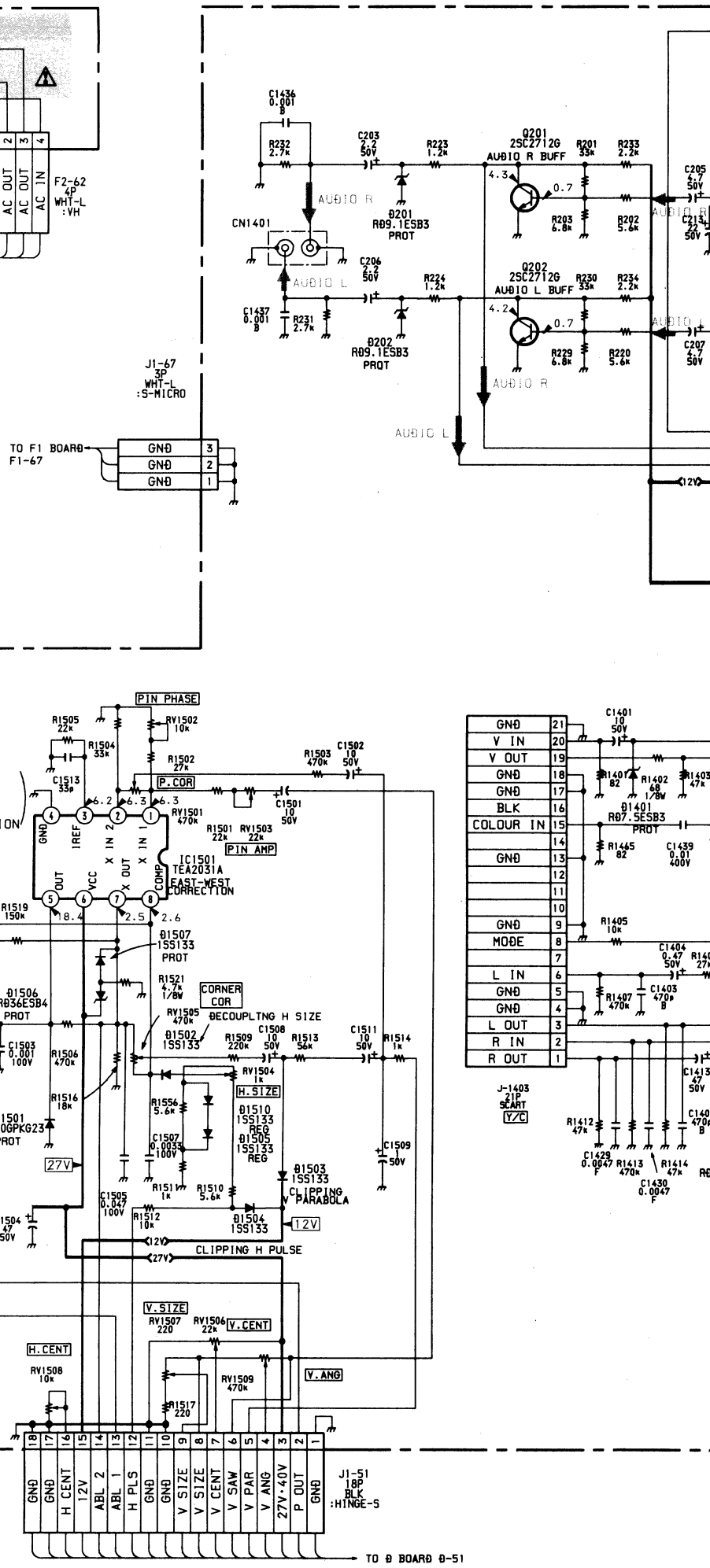

H1
(CONTROL SW
, AV INPUT,
HEAΘPHONE)
S1652
S1653
S1651
MODE
H1-1
3P
WHT
:S-MICRO
TO Θ BOARΘ Θ-1
LC3
LC2
LC1
H1-43
9P
WHT
:S-MICRO
TO J1 BOARΘ J1-43
H1-2
R
L
VIΘEO
Y/C
R OUT
GNΘ
L OUT
GNΘ
VIΘEO OUT
GNΘ
C OUT
GNΘ
Y OUT
H1-23
4P
BLK
:S-MICRO
TO Θ BOARΘ Θ-23
H1-5
HP
R1652
470
1/4W
R1651
470
1/4W
L IN
GNΘ
GNΘ
R IN
SP L
GNΘ
GNΘ
SP R
H1-4
4P
WHT
:S-MICRO
TO J2 BOARΘ J2-4

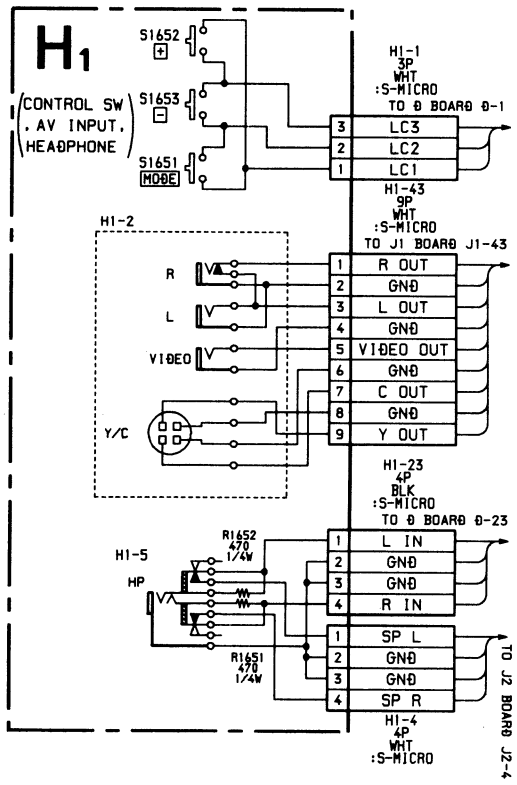

F2
(POWER
SWITCH)
S1701
POWER
AC IN
AC OUT
AC OUT
AC IN
F2-62
4P
WHT-L
:VH
TO F1 BOARΘ F1-62

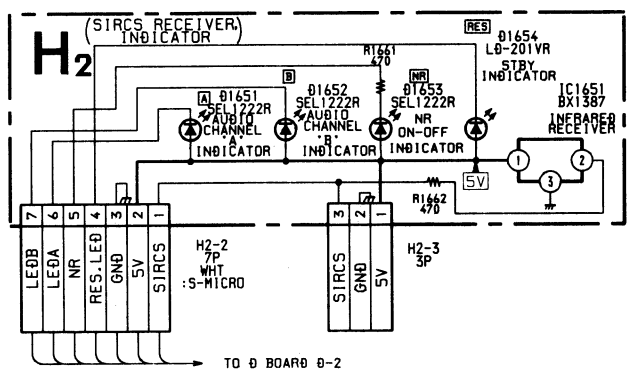

J1-67
3P
WHT-L
:S-MICRO
TO F1 BOARΘ
F1-67
GNΘ
GNΘ
GNΘ

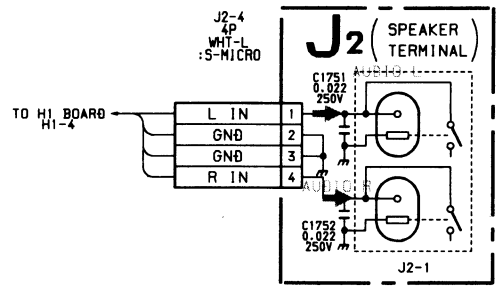

J1
(AUΘIO CONTROL,
AV INPUT,
Y/C INPUT,
SCART VIΘEO OUT,
EAST-WEST CORRCTION)
PIN PHASE
R1505
22k
RV1502
10k
R1504
33k
R1502
27k
C1513
33p
P.COR
R1503
470k
C1502
10
50V
C1501
10
50V
R1501
22k
RV1503
22k
PIN AMP
RV1501
470k
IC1501
TEA2031A
EAST-WEST
CORRECTION
R1515
680k
C1515
820p
R1519
150k
Θ1507
1SS133
PROT
C1514
0.022
250V
C1512
0.068
400V
Θ1506
RΘ36ESB4
PROT
CORNER
COR
DECOUPLTNG H SIZE
Θ1502
1SS133
R1509
220k
C1508
10
50V
R1513
56k
C1511
10
50V
R1514
1k
RV1504
1k
H.SIZE
C1503
0.001
100V
R1506
470k
R1516
18k
Θ1501
RGP10GPKG23
PROT
27V
R1556
5.6k
Θ1510
1SS133
REG
Θ1505
1SS133
REG
C1507
0.033
100V
R1511
1k
R1510
5.6k
Θ1503
1SS133
CLIPPING
PARABOLA
C1505
0.047
100V
R1512
10k
Θ1504
1SS133
12V
C1504
47
50V
CLIPPING H PULSE
V.SIZE
RV1507
220
RV1506
22k
V.CENT
R1520
470k
H.CENT
RV1508
10k
RV1509
470k
V.ANG
R1517
220
J1-51
18P
BLK
:HINGE-S
GNΘ
GNΘ
H CENT
12V
ABL 2
ABL 1
H PLS
GNΘ
GNΘ
V SIZE
V SIZE
V CENT
V SAW
V PAR
V ANG
27V·40V
P OUT
GNΘ
TO Θ BOARΘ Θ-51

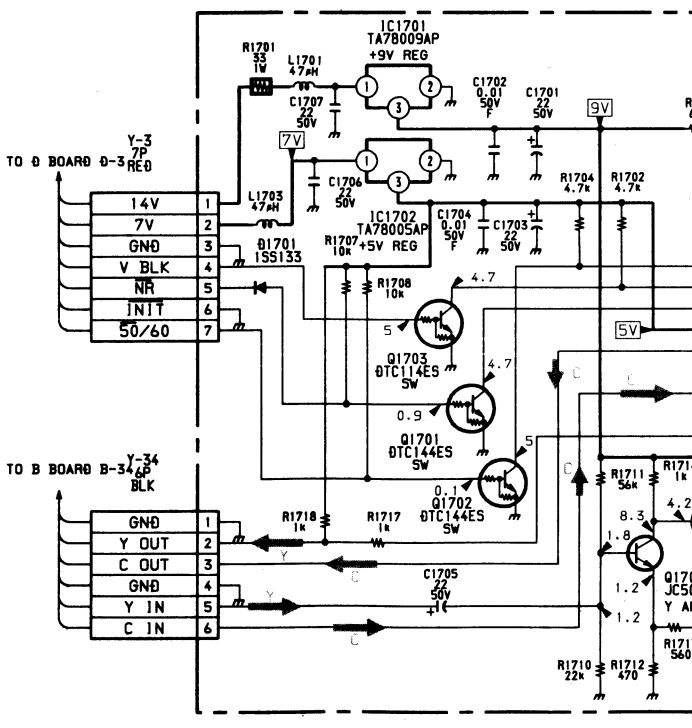
S1701
POWER
AC IN
AC OUT
AC OUT
AC IN
F2-62
4P
WHT-L
:VH
TO F1 BOARΘ F1-62

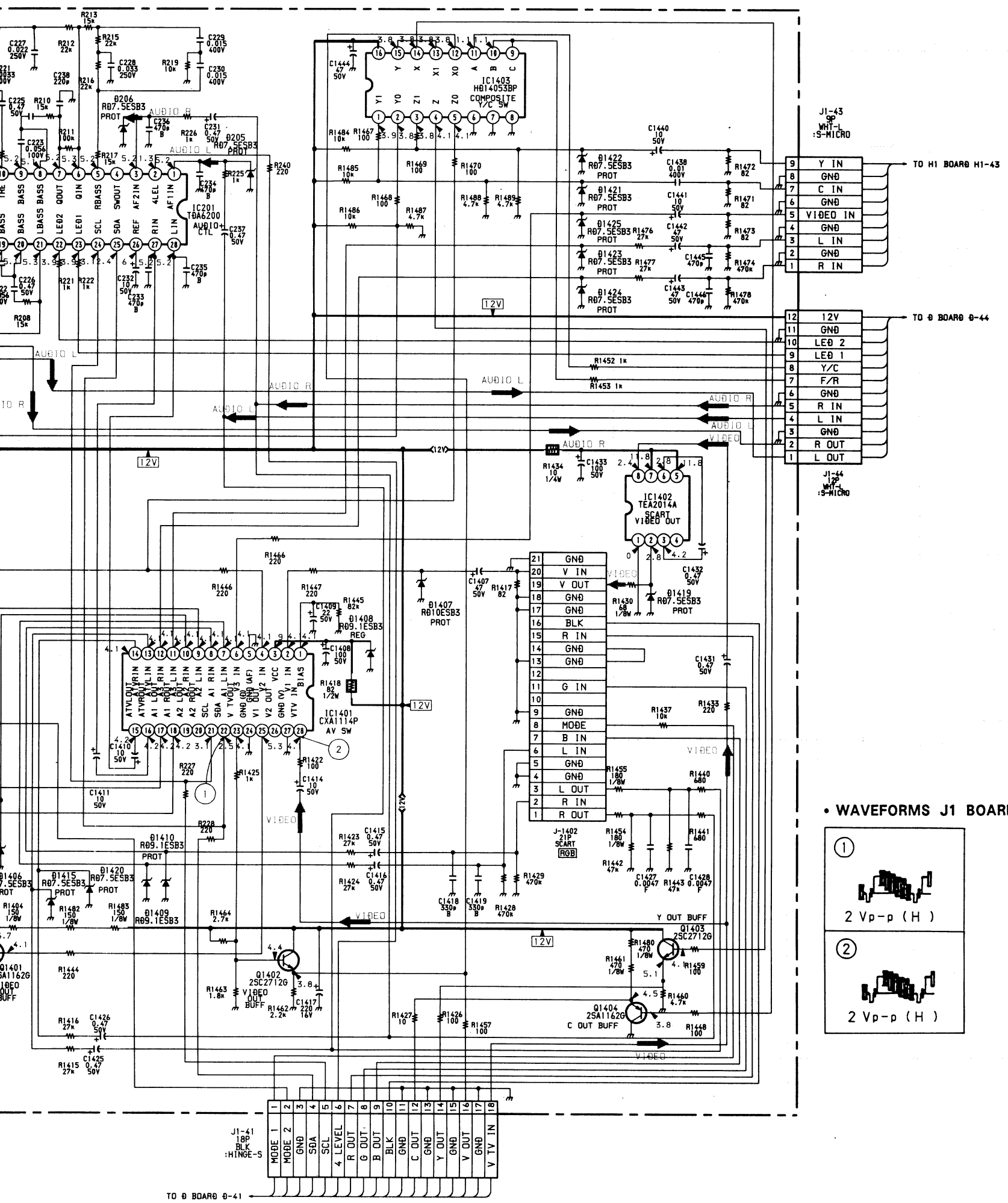

C1436
0.001
B
R232
2.7k
C203
2.2
50V
R223
1.2k
Q201
2SC2712G
AUΘIO R BUFF
R201
33k
R233
2.2k
AUΘIO R
Θ201
RΘ9.1ESB3
PROT
CN1401
C206
2.2
50V
R224
1.2k
Q202
2SC2712G
AUΘIO L BUFF
R230
33k
R234
2.2k
C1437
0.001
B
R231
2.7k
AUΘIO L
Θ202
RΘ9.1ESB3
PROT
R203
6.8k
R202
5.6k
R229
6.8k
R220
5.6k
AUΘIO R
AUΘIO L
R213
15k
C224
0.01
400V
R209
22k
C227
0.022
250V
R212
22k
R215
22k
C229
0.015
400V
C219
0.022
250V
C221
0.0033
100V
C238
220p
R216
22k
C228
0.033
250V
R219
10k
C230
0.015
400V
C217
0.0068
400V
C225
0.47
50V
R210
15k
Θ206
RΘ7.5ESB3
PROT
AUΘIO R
C234
470p
B
R226
1k
AUΘIO L
Θ205
RΘ7.5ESB3
PROT
C231
0.47
50V
C205
4.7
50V
R205
33k
R207
3.3k
C223
0.056
100V
R211
100k
R217
15k
R225
1k
R240
220
C213
22
50V
C234
470p
B
IC201
TΘA6200
AUΘIO
CTL
C237
0.47
50V
C207
4.7
50V
R204
33k
R206
3.3k
C226
0.47
50V
C222
0.056
100V
R208
15k
C214
0.0068
400V
C218
0.022
250V
C220
0.033
100V
R221
1k
R222
1k
C232
10
50V
C233
470p
B
C235
470p
B
R214 220
R218 220
C239
470
16V
12V
AUΘIO L
AUΘIO R
J-1403
21P
SCART
Y/C
GNΘ
V IN
V OUT
GNΘ
GNΘ
BLK
COLOUR IN
GNΘ
MOΘE
L IN
GNΘ
GNΘ
L OUT
R IN
R OUT
C1401
10
50V
R1401
82
R1402
68
1/8W
R1403
47k
C1402
470
16V
Θ1401
RΘ7.5ESB3
PROT
R1465
82
C1439
0.01
400V
Θ1426
RΘ7.5ESB3
PROT
R1405
10k
C1404
0.47
50V
R1408
27k
Θ1403
RΘ7.5ESB3
PROT
C1403
470p
B
R1407
470k
C1412
47
50V
R1409
470
C1413
47
50V
C1406
0.47
50V
R1411
470
R1410
27k
R1412
47k
C1429
0.0047
F
R1413
470k
C1430
0.0047
F
R1414
47k
Θ1404
RΘ7.5ESB3
PROT
Θ1405
RΘ7.5ESB3
PROT
Θ1406
RΘ7.5ESB3
PROT
Θ1415
RΘ7.5ESB3
PROT
Θ1420
RΘ7.5ESB3
PROT
R1482
150
1/8W
R1483
150
1/8W
Θ1409
RΘ9.1ESB3
Θ1410
RΘ9.1ESB3
PROT
Θ1418
RΘ7.5ESB3
PROT
Q1401
2SA1162G
VIΘEO
OUT
BUFF
R1404
150
1/8W
R1444
220
R1464
2.7k
Q1402
2SC2712G
VIΘEO
OUT
BUFF
R1463
1.8k
R1462
2.2k
C1417
220
16V
R1466
220
R1446
220
R1447
220
R1445
82k
C1409
22
50V
Θ1408
RΘ9.1ESB3
REG
C1408
100
50V
R1418
82
1/2W
IC1401
CXA1114P
AV SW
C1410
10
50V
R227
220
R1422
100
C1414
10
50V
R1425
1k
C1411
10
50V
R228
220
VIΘEO
R1423
27k
C1415
0.47
50V
R1424
27k
C1416
0.47
50V
R1426
0.47
50V
R1416
27k
R1415
27k
C1425
0.47
50V
R1427
10
12V
J1-41
18P
BLK
:HINGE-S
MODE 1
MODE 2
GNΘ
SΘA
SCL
4 LEVEL
R OUT
G OUT
B OUT
BLK
GNΘ
C OUT
TO Θ BOARΘ Θ-41

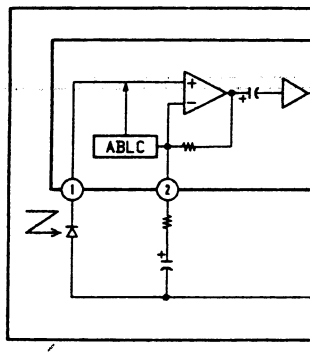




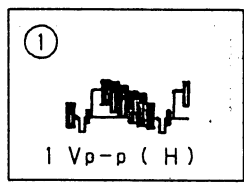




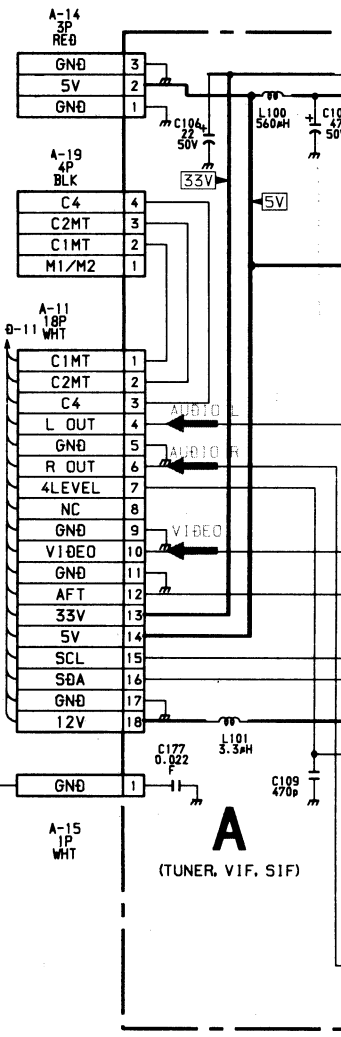


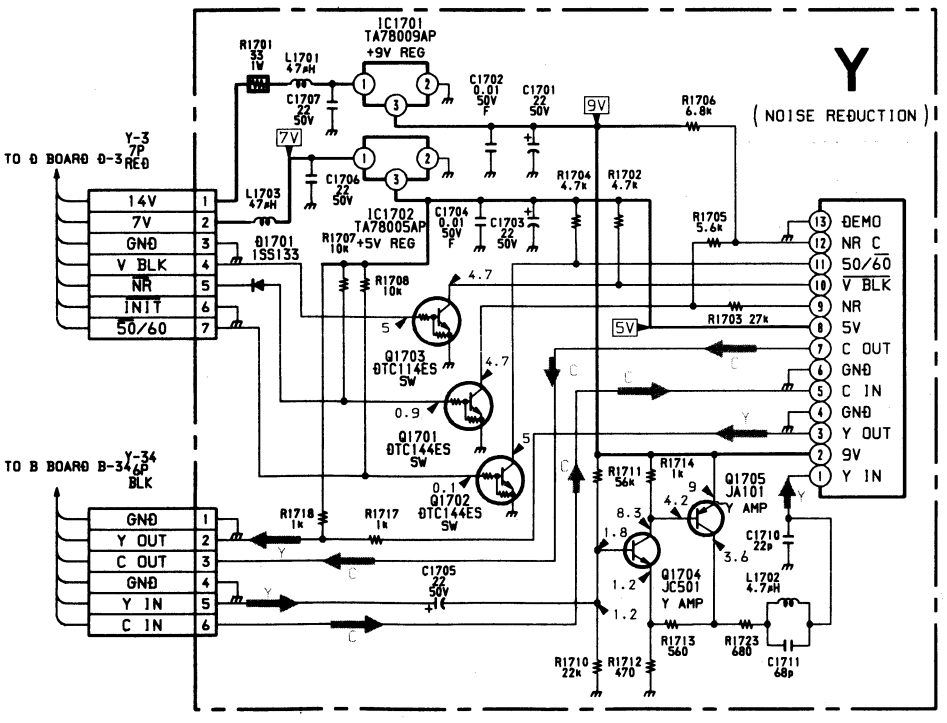


• WAVEFORMS A B

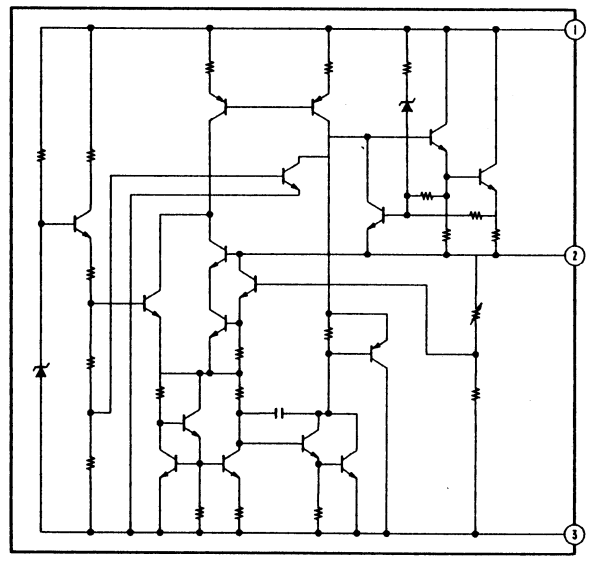


• WAVEFORMS J1 BOARD

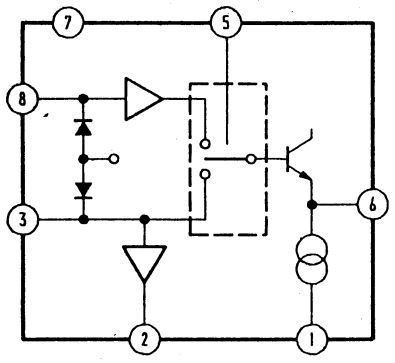




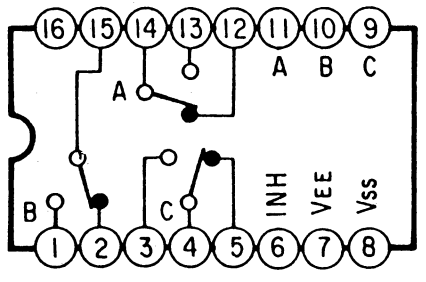
Y BOARD IC701 TA78009AP
Y BOARD IC702 TA78005AP



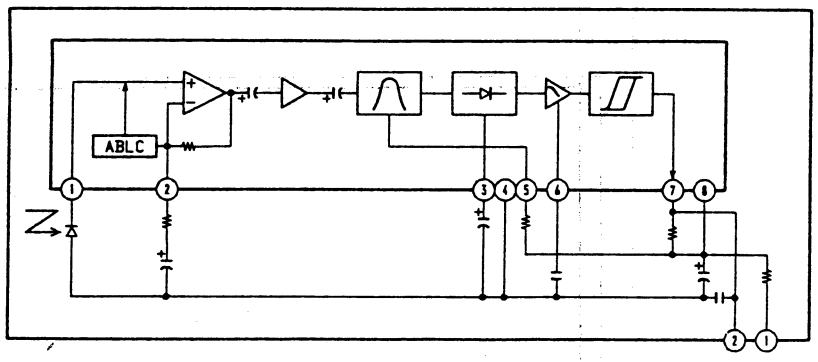
J1 BOARD IC1402 TEA2014A



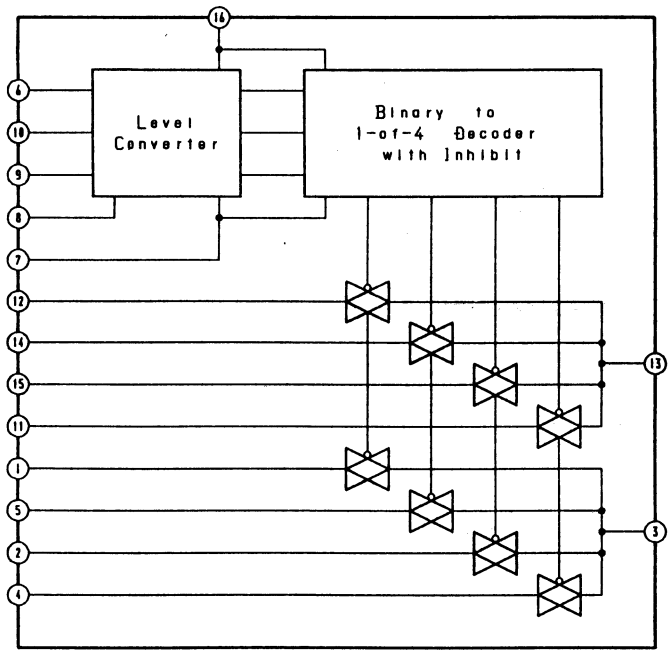
J1 BOARD IC1403 HD14053BP



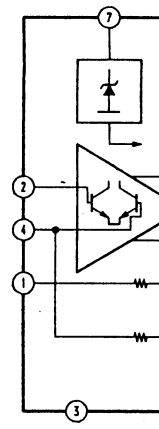
H2 BOARD IC1651 BX1387



A BOARD IC101 TC4052BPHB



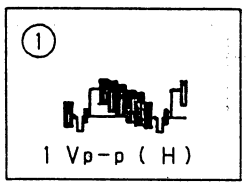
A BOARD I



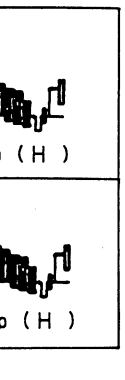
→ TO H1 BOARD H1-43

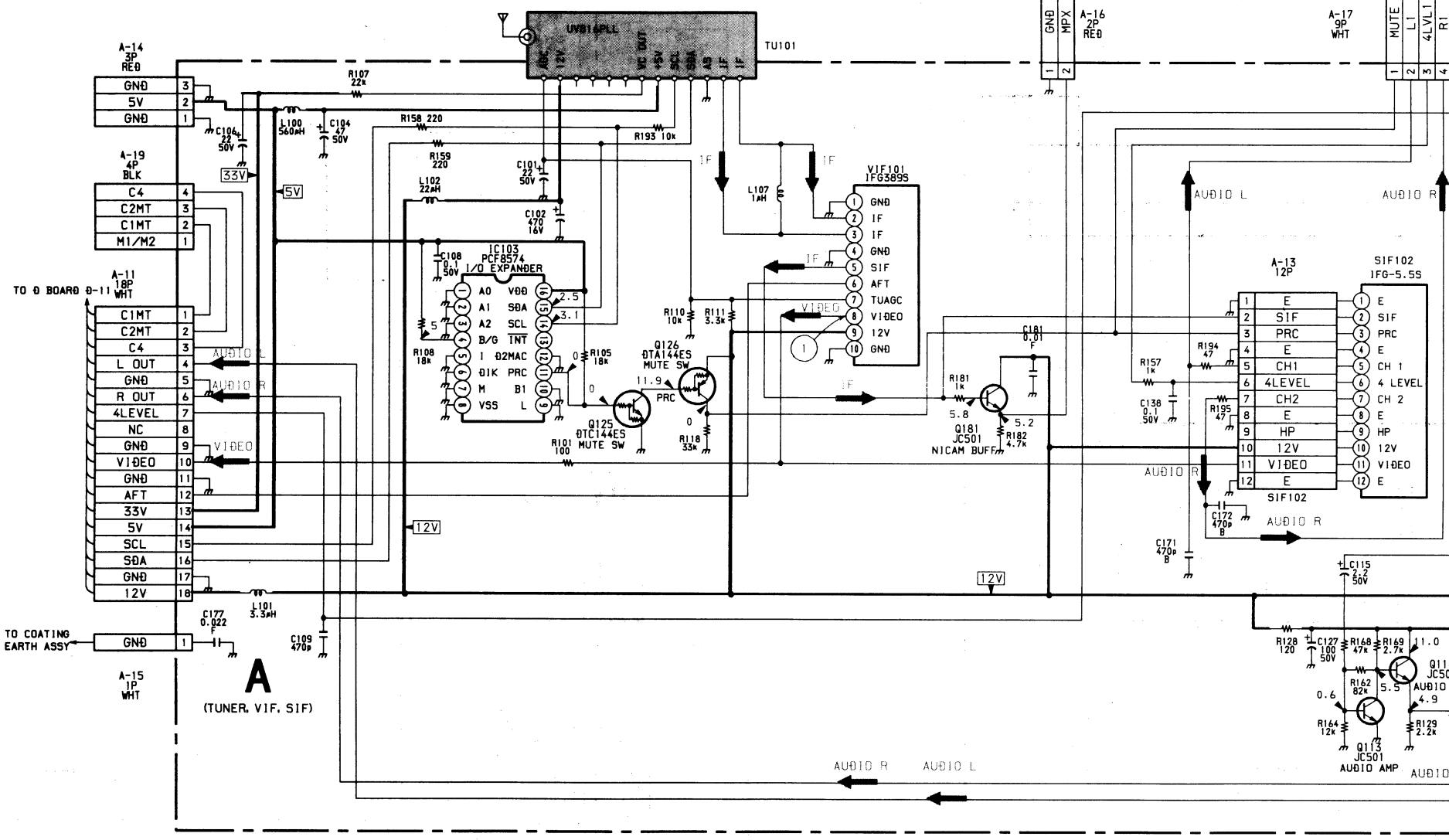
→ TO D BOARD D-44

• WAVEFORMS A BOARD



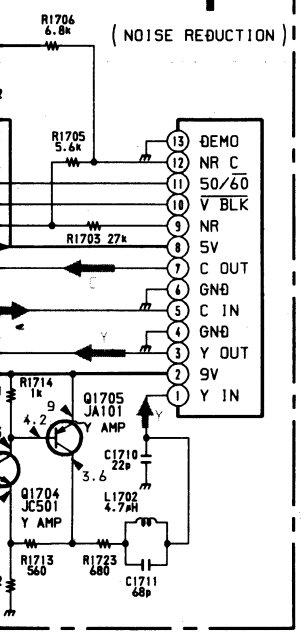
ORMS J1 BOARD



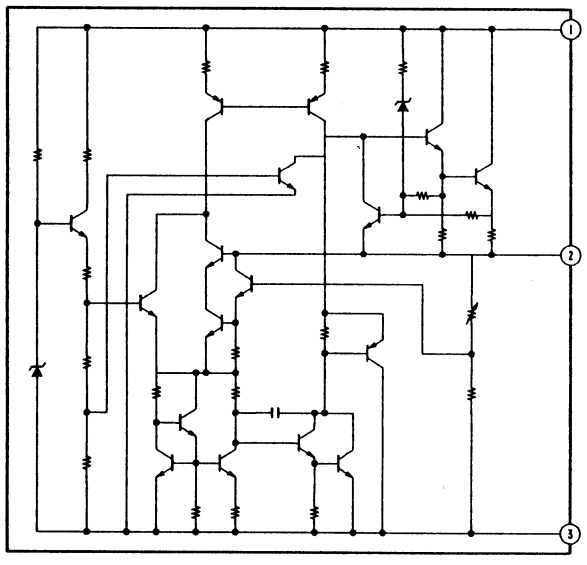


Y

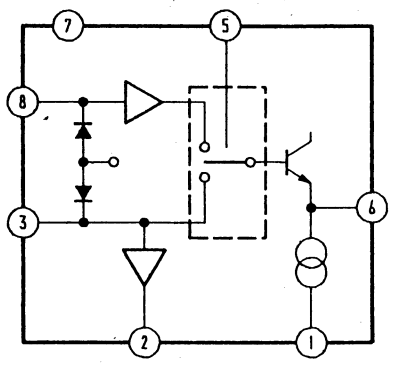
(NOISE REDUCTION)



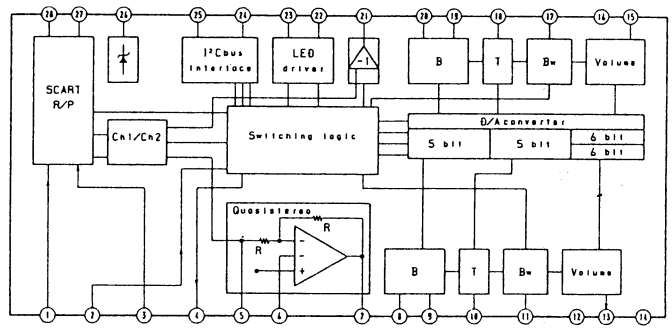
Y BOARD IC701 TA78009AP
Y BOARD IC702 TA78005AP



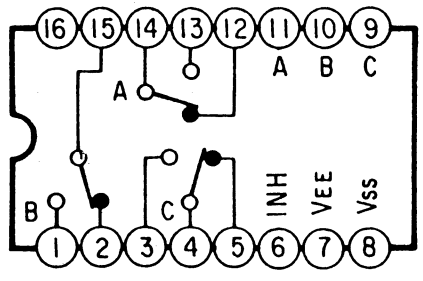
J1 BOARD IC1402 TEA2014A



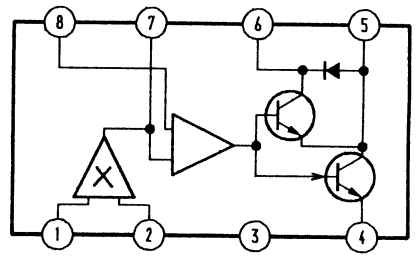
J1 BOARD IC201 TDA6200



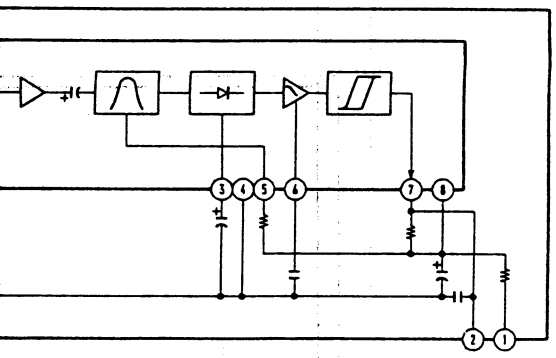
J1 BOARD IC1403 HD14053BP



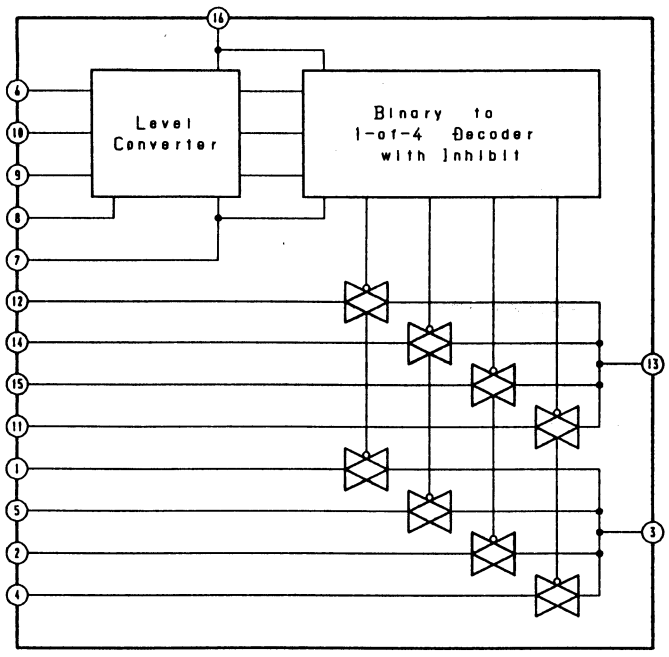
J1 BOARD IC1501 TEA2031



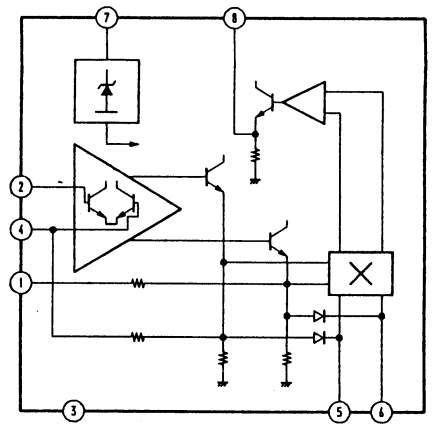
X1387



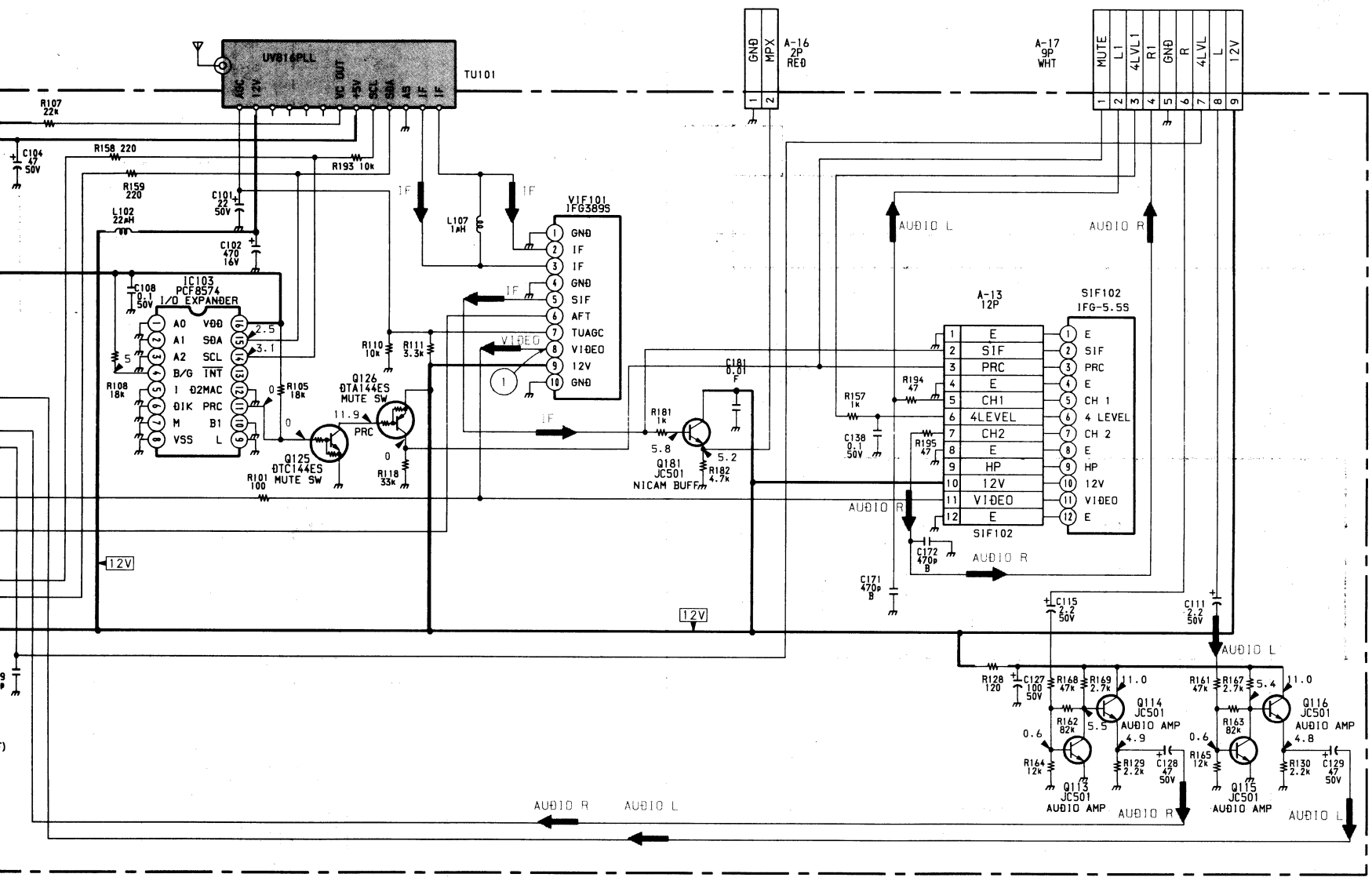
A BOARD IC101 TC4052BPHB



A BOARD IC105 TBA129

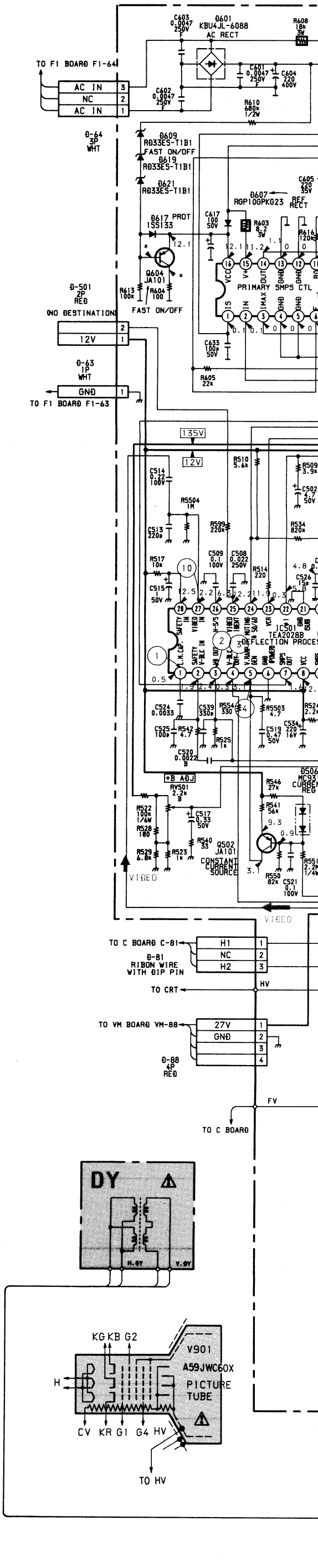


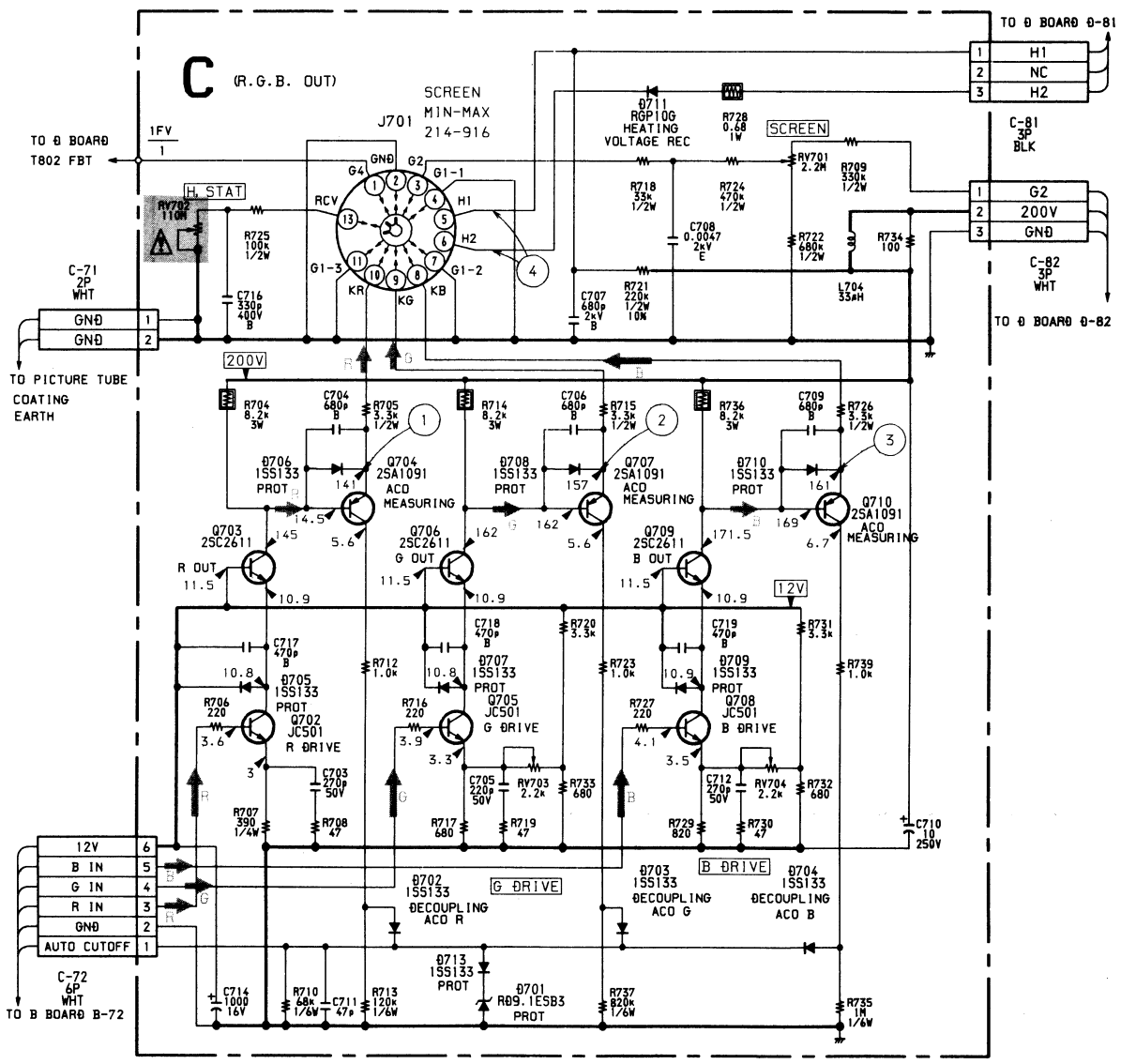
A BOARD



• WAVEFORMS D BOARD

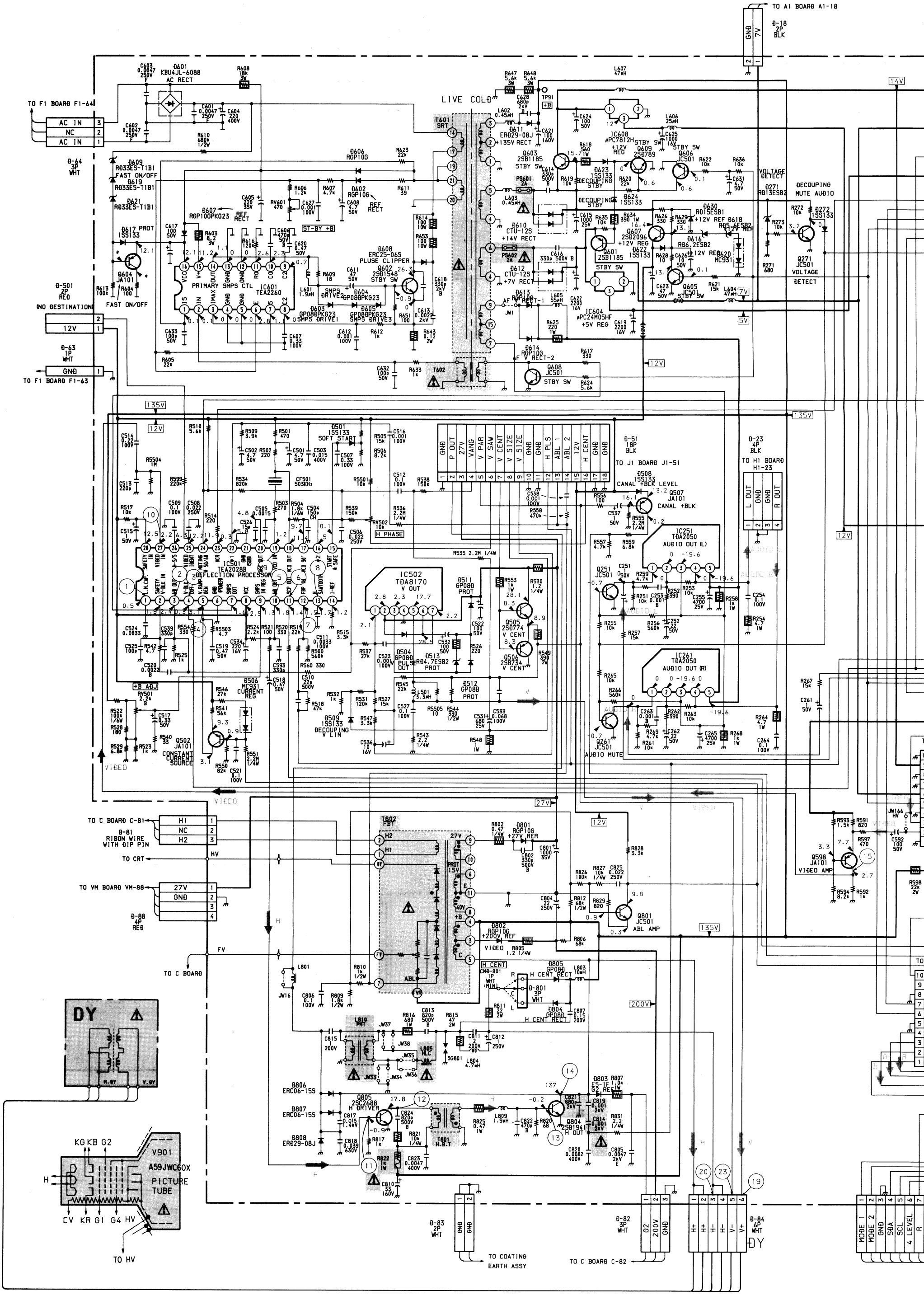
① 13 Vp-p (H)	② 2.8 Vp-p (H)	③ 4.5Vp-p (V)
④ 2.8 Vp-p (V)	⑤ 4 Vp-p (H)	⑥ 11 Vp-p (H)
⑦ 14 Vp-p (H)	⑧ 4 Vp-p (H)	⑨ 0.1Vp-p (503KHz)
⑩ 1.3Vp-p (H)	⑪ 3.2Vp-p (H)	⑫ 230 Vp-p (H)
⑬ 13 Vp-p (H)	⑭ 920Vp-p (H)	⑮ 1 Vp-p (H)
⑯ 10.5Vp-p (H)	⑰ 3.8Vp-p (V)	⑱ 6.3Vp-p (H)
⑲ 50Vp-p (V)	⑳ 160Vp-p (H)	㉑ 3.8Vp-p (V)
㉒ 3.2Vp-p (12MHz)	㉓ 7 Vp-p (V)	



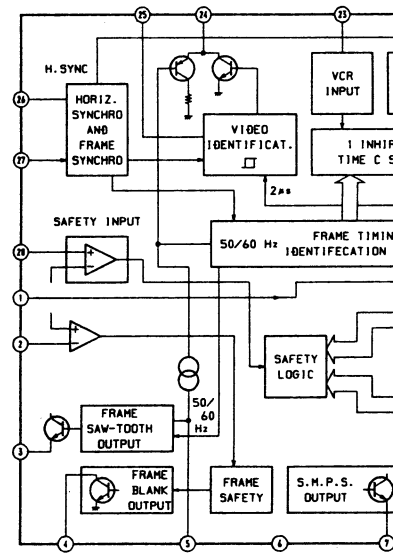


• WAVEFORMS C BOARD

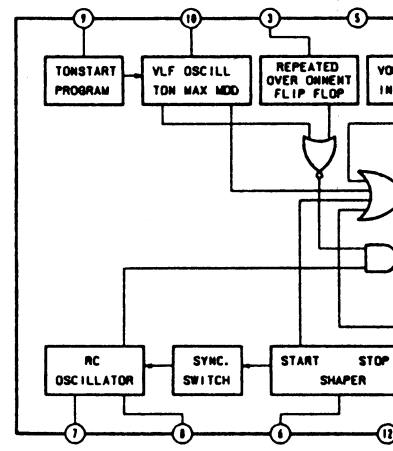
① 120Vp-p (H)	② 100 Vp-p (H)	③ 80 Vp-p (H)	④ 21Vp-p (H)


TO A1 BOARD A1-18
D-18 2P BLK
GND
7V
TO F1 BOARD F1-64
AC IN
NC
AC IN
D-64 3P WHT
D601 KBU4JL-6088 AC RECT
LIVE COLD
TP91 +B
T601 SRT
D611 ERO29-08J +135V RECT
IC601 TEA2260 PRIMARY SMPS CTL
IC602 TEA2028B DEFLECTION PROCESSOR
IC502 TDA8170 V OUT
IC251 TDA2050 AUDIO OUT (L)
IC261 TDA2050 AUDIO OUT (R)
IC604 μPC24M05HF +5V REG
JC608 μPC7812H +12V REG
D612 CTU-12S +7V RECT
D610 CTU-12S +14V RECT
D614 RGP10G AFV RECT-2
D613 RGP10G AFV RECT-1
D608 ERC25-06S PULSE CLIPPER
D607 RGP10GPKG23 REF RECT
D602 RGP10G REF RECT
D606 RGP10G
D609 RO33ES-T1B1 FAST ON/OFF
D619 RO33ES-T1B1
D621 RO33ES-T1B1
D617 PROT 1SS133
D630 RO15ESB1 +12V REF
D618 RO5.2ESB2 +12V REF
D616 RO6.2ESB2 +12V REF
D620 MC931
D271 RO13ESB2
D271 VOLTAGE DETECT
D272 1SS133
DECOUPING MUTE AUDIO
Q271 JC501 VOLTAGE DETECT
VOLTAGE DETECT
D-501 2P RED
(NO DESTINATION)
12V
FAST ON/OFF
D-63 1P WHT
GND
TO F1 BOARD F1-63
135V
12V
27V
5V
14V
7V
D-51 18P BLK
TO J1 BOARD J1-51
D-23 4P BLK
TO H1 BOARD H1-23
L OUT
GND
GND
R OUT
D508 1SS133 CANAL +BLK LEVEL
Q507 JA101 CANAL +BLK
D501 1SS133 SOFT START
D509 1SS133 DECOUPING V LIN
D511 GP08D PROT
D512 GP08D PROT
D513 RO4.7ESB2 PROT
D504 GP08D PULSE OUT
Q502 JA101 CONSTANT CURRENT SOURCE
Q506 MC931 CURRENT REG
Q503 2SC734 V CENT
Q505 2SB774 V CENT
Q501 TEA2028B DEFLECTION PROCESSOR
Q608 JC501 STBY SW
Q603 2SB1185 STBY SW
Q609 2SD789 STBY SW
Q606 JC501 STBY SW
Q601 2SB1185 STBY SW
Q605 JC501 STBY SW
Q607 2SD2096 +12V REG
Q261 JC501 AUDIO MUTE
DECOUPING STBY
ST-BY +B
+B ADJ
RV501 2.2k B
H PHASE
CF501 503KHz
VIDEO
AUDIO L
AUDIO R
D-81 RIBON WIRE WITH DIP PIN
TO C BOARD C-81
H1
NC
H2
TO CRT
HV
TO VM BOARD VM-88
27V
GND
D-88 4P RED
FV
TO C BOARD
T802 FBT
D801 RGP10G +27V REF
D802 RGP10G +200V REF
D803 FS-1F G2 REF
D804 GP08D H CENT RECT
D805 GP08D H CENT RECT
D806 ERC06-15S
D807 ERC06-15S
D808 ER029-08J
Q805 2SC2688 H DRIVER
Q804 2SD1941 H OUT
Q801 JC501 ABL AMP
Q598 JA101 VIDEO AMP
H CENT
D-801 3P WHT
T801 H.O.T
SG801
DY
V901 A59JWC60X PICTURE TUBE
KG KB G2
CV KR G1 G4 HV
TO HV
D-83 2P WHT
TO COATING EARTH ASSY
D-82 3P WHT
G2
200V
GND
TO C BOARD C-82
D-84 6P WHT
H+
H+
H-
H-
V-
V+
MODE 1
MODE 2
GND
SDA
SCL
4 LEVEL
R
200V

D BOARD IC501 TEA2028B



D BOARD IC601 TEA2260



TO Y BOARD Y-3

D-3 7P RED

TO H2 BOARD H2-2

D-2 7P WHT

TO H1 BOARD H1-1

D-1 3P WHT

D (TUNING CONTROL, POWER CONTROL, AUDIO OUT, H/V OUT)

IC001 SDA2083 TUNING CTL

IC002 CX01050A-09P ON SCREEN DISPLAY

IC003 BA4558 AFT COMPARATORE

IC005 SDA2546 NV MEMORY

Q001 DTC144ES 50/60HZ SW

Q002 DTA144ES RGB SW

Q003 JA101 SYNC SEPARATOR

Q004 JA101 SYNC SEPARATOR

Q005 DTC144ES Y/C SW

Q006 DTC144ES FRONT/REAR SW

Q007 DTC144ES MODE 2 SWITCH

Q008 DTC144ES MODE 1 SWITCH

Q009 JC501

D001 1SS133 IDENTIFICATION

D002 RD6.8ESB3 50/60HZ SW

D003 1SS133 HUE CTL

D004 1SS133 RESET ON SCREEN DISPLAY

D005 RD5.6ESB2 H PULSE CLIPPING

D007 1SS133 PROT RESET

D009 RD5.6ESB2 CLIPPING SYNC LEVEL

D010 RD6.2ESB2

D011 RD6.2ES-B2

TO V BOARD CNV-41

10	GND
9	14V
8	GND
7	GND
6	7V
5	ST.BY
4	GND
3	VIDEO
2	S-TV
1	GND

D-21 10P GRY

10	HUE
9	ST.BY
8	MUTE
7	CHAR
6	P/ON
5	GND
4	+12
3	SCP
2	+BLK
1	ABL

D-22 10P GRY

TO V BOARD CNV-42

10	PON
9	TV
8	GND
7	TXD
6	CLK
5	GND
4	R IN
3	G IN
2	B IN
1	BLK

D-31 10P GRY

10	V IN
9	GND
8	Y OUT
7	GND
6	V OUT
5	YC-SWITCH
4	C OUT
3	GND
2	SDA
1	SCL

TO B BOARD B-31

D-32 10P GRY

TO B BOARD B-32

D-33 10P GRY

10	GND
9	TEXT R
8	TEXT G
7	TEXT B
6	BLK
5	GND
4	R OUT
3	G OUT
2	B OUT
1	BLK1

TO B BOARD B-33

1	C1MT
2	C2MT
3	C4
4	L IN
5	GND
6	R IN
7	4-LEVEL
8	NC
9	GND
10	VIDEO
11	GND
12	AFT
13	33V
14	5V
15	SCL
16	SDA
17	GND
18	12V

D-11 18P WHT

TO A BOARD A-11

D-41 18P BLK

TO J1 BOARD J1-41

D-44 6P WHT

TO J1 BOARD J1-44

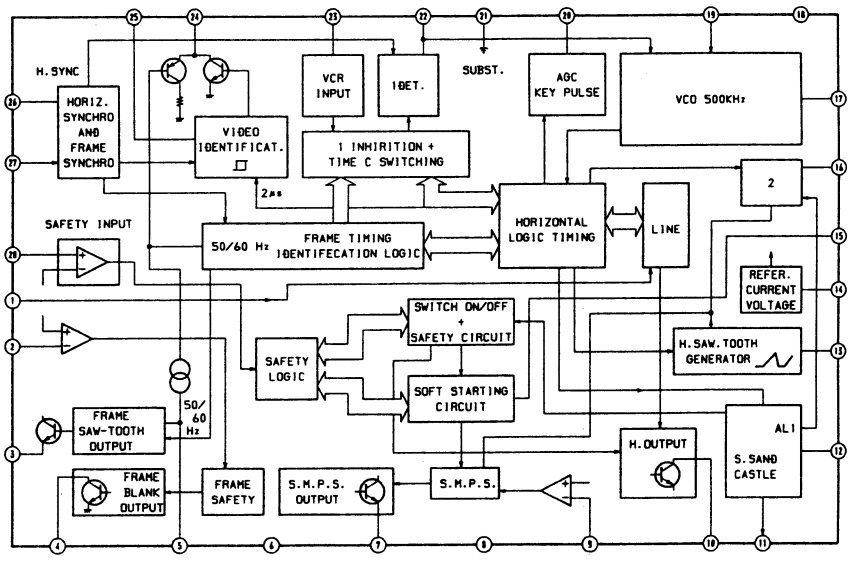
6	12V
5	GND
4	LED 2
3	LED 1
2	Y/C
1	F/R

D-45 6P BLK

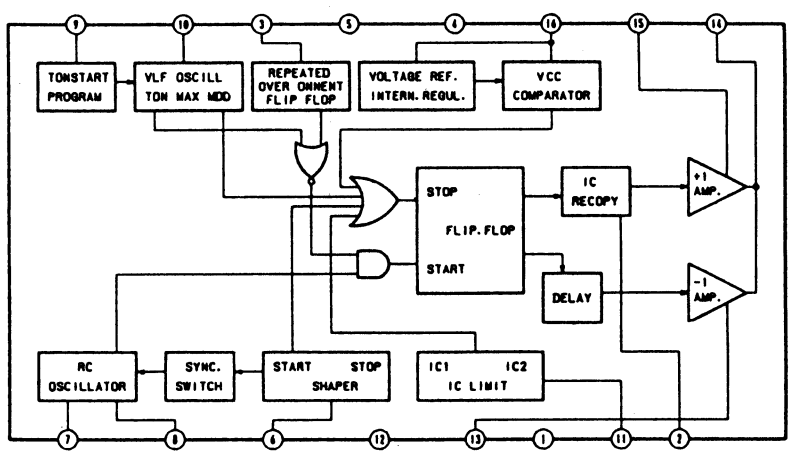
TO J1 BOARD J1-44

6	GND
5	R OUT
4	L OUT
3	GND
2	R IN
1	L IN

D BOARD IC501 TEA2028B

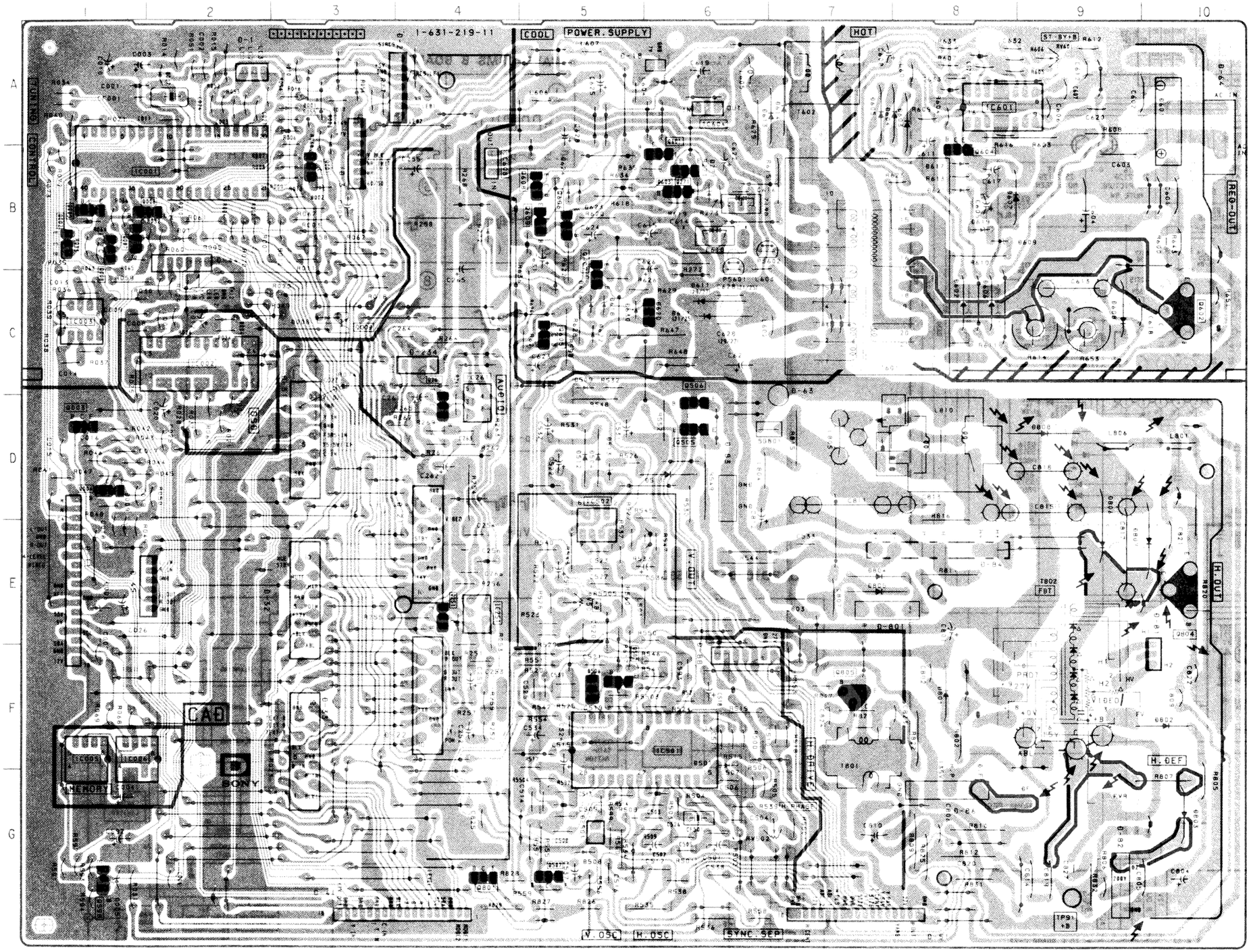


D BOARD IC601 TEA2260



D [TUNING CONTROL, POWER CONTROL AUDIO OUT, H/V OUT]

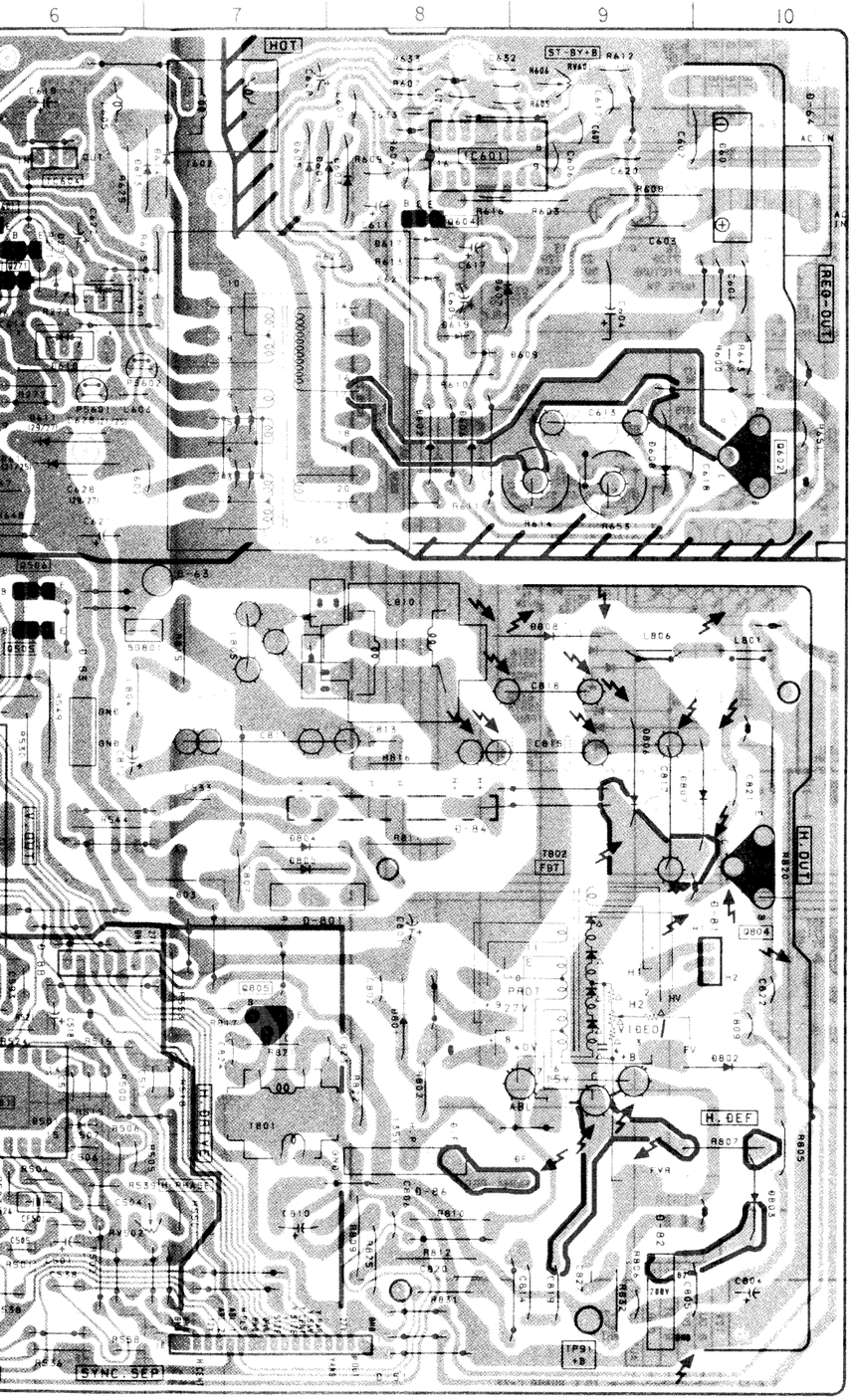
-D Board-



D BOARD

IC		DIODE			
IC001	B-1	D001	A-3	D803	G-10
IC002	C-2	D002	B-3	D804	E-7
IC003	C-1	D003	A-3	D805	E-7
IC005	F-1	D004	C-2	D806	D-9
IC006	F-1	D005	G-1	D806	E-9
IC251	E-4	D006	E-1	D807	D-9
IC261	C-4	D007	A-2	D808	E-10
IC501	F-6	D008	C-2		
IC502	D-6	D009	D-1		
IC601	A-8	D010	B-2	VARIABLE RESISTOR	
IC604	A-6	D011	B-2		
IC608	B-4	D271	B-6	RV501	E-5
		D272	B-4	RV502	G-6
TRANSISTOR		D501	F-6	RV601	A-9
		D504	D-5		
Q001	B-3	D506	F-5	TEST POINT	
Q002	B-1	D508	G-5		
Q003	D-1	D509	C-5	TP91	G-9
Q004	D-1	D511	D-9		
Q005	B-1	D512	D-5		
Q006	B-1	D513	D-5		
Q007	B-1	D601	A-10		
Q008	B-1	D602	C-8		
Q009		D603	A-8		
Q251	E-4	D604	A-7		
Q261	C-4	D605	A-7		
Q271	B-6	D606	C-8		
Q502	F-5	D607	B-8		
Q505	D-6	D608	C-9		
Q506	C-6	D609	B-8		
Q507	G-5	D610	B-6		
Q601	A-6	D611	C-6		
Q602	C-10	D612	B-6		
Q603	B-6	D613	A-6		
Q604	B-7	D614	A-7		
Q605	C-5	D616	C-5		
Q606	B-5	D617	B-8		
Q607	B-5	D618	C-5		
Q608	B-5	D619	B-8		
Q609	B-5	D620	C-6		
Q598	G-1	D621	B-8		
Q801	G-4	D622	C-5		
Q804	E-10	D623	B-5		
Q805	F-7	D624	B-5		
		D630	C-5		
		D801	F-8		
		D802	F10		

KV-E2511D RM-689

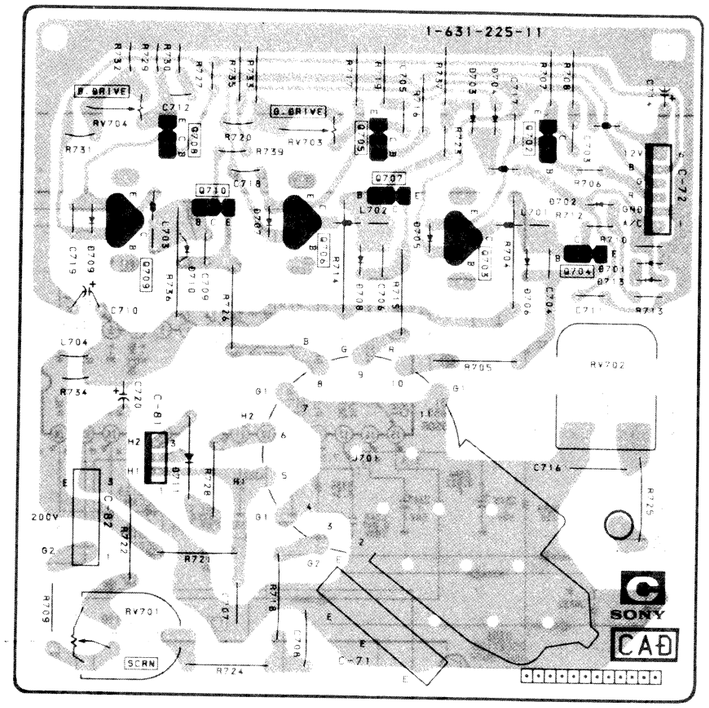


D BOARD

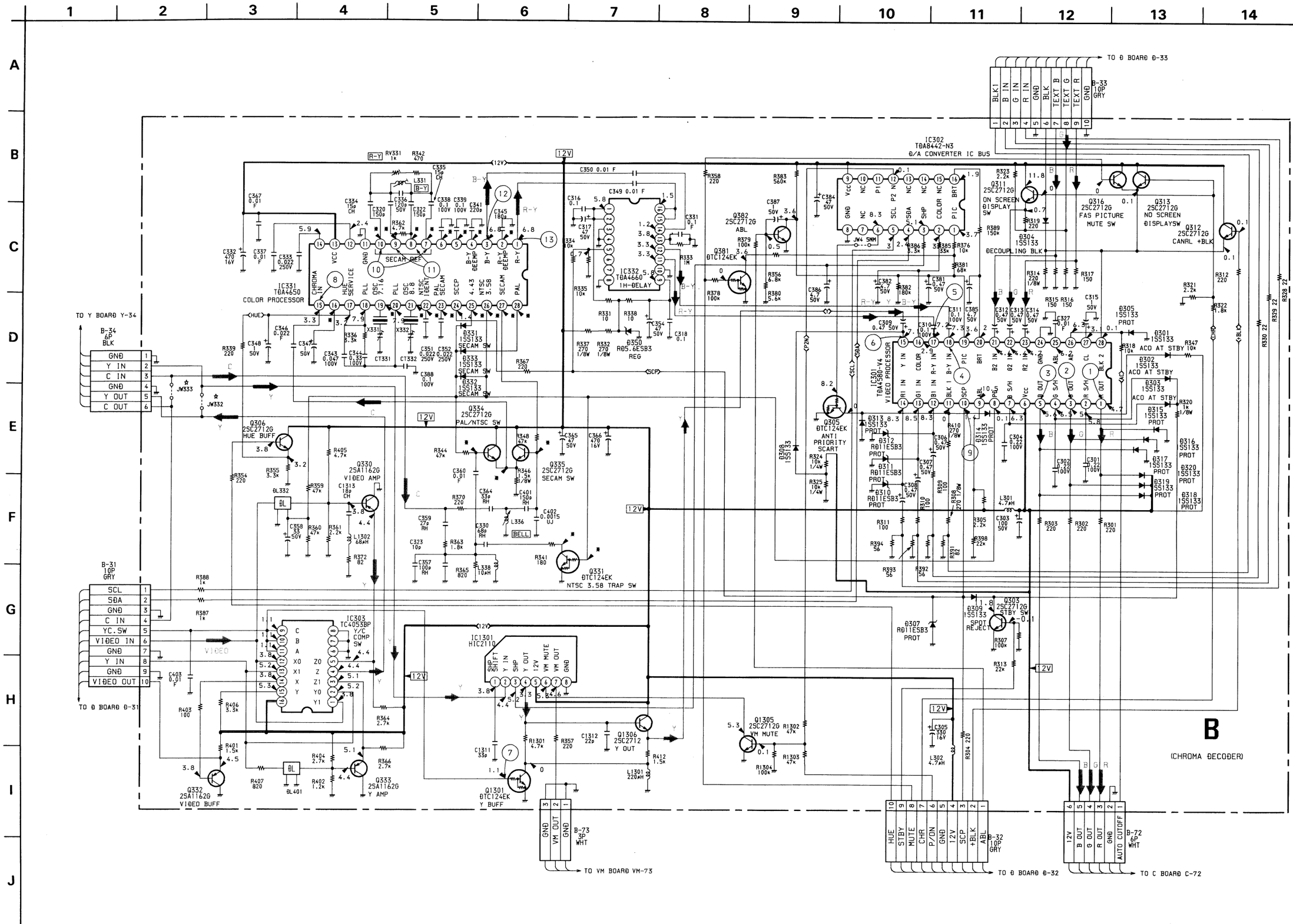
IC		ÐIOÐE			
IC001	B-1	Ð001	A-3	Ð803	G-10
IC002	C-2	Ð002	B-3	Ð804	E-7
IC003	C-1	Ð003	A-3	Ð805	E-7
IC005	F-1	Ð004	C-2	Ð806	Ð-9
IC006	F-1	Ð005	G-1	Ð806	E-9
IC251	E-4	Ð006	E-1	Ð807	Ð-9
IC261	C-4	Ð007	A-2	Ð808	E-10
IC501	F-6	Ð008	C-2		
IC502	Ð-6	Ð009	Ð-1		
IC601	A-8	Ð010	B-2	VARIABLE RESISTOR	
IC604	A-6	Ð011	B-2		
IC608	B-4	Ð271	B-6	RV501	E-5
		Ð272	B-4	RV502	G-6
TRANSISTOR		Ð501	F-6	RV601	A-9
		Ð504	Ð-5		
Q001	B-3	Ð506	F-5		
Q002	B-1	Ð508	G-5	TEST POINT	
Q003	Ð-1	Ð509	C-5		
Q004	Ð-1	Ð511	Ð-9	TP91	G-9
Q005	B-1	Ð512	Ð-5		
Q006	B-1	Ð513	Ð-5		
Q007	B-1	Ð601	A-10		
Q008	B-1	Ð602	C-8		
Q009		Ð603	A-8		
Q251	E-4	Ð604	A-7		
Q261	C-4	Ð605	A-7		
Q271	B-6	Ð606	C-8		
Q502	F-5	Ð607	B-8		
Q505	Ð-6	Ð608	C-9		
Q506	C-6	Ð609	B-8		
Q507	G-5	Ð610	B-6		
Q601	A-6	Ð611	C-6		
Q602	C-10	Ð612	B-6		
Q603	B-6	Ð613	A-6		
Q604	B-7	Ð614	A-7		
Q605	C-5	Ð616	C-5		
Q606	B-5	Ð617	B-8		
Q607	B-5	Ð618	C-5		
Q608	B-5	Ð619	B-8		
Q609	B-5	Ð620	C-6		
Q598	G-1	Ð621	B-8		
Q801	G-4	Ð622	C-5		
Q804	E-10	Ð623	B-5		
Q805	F-7	Ð624	B-5		
		Ð630	C-5		
		Ð801	F-8		
		Ð802	F10		

C [R・G・B OUT]

—C Board—



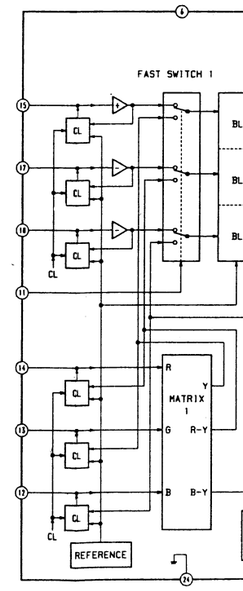
KV-E2511D
RM-689



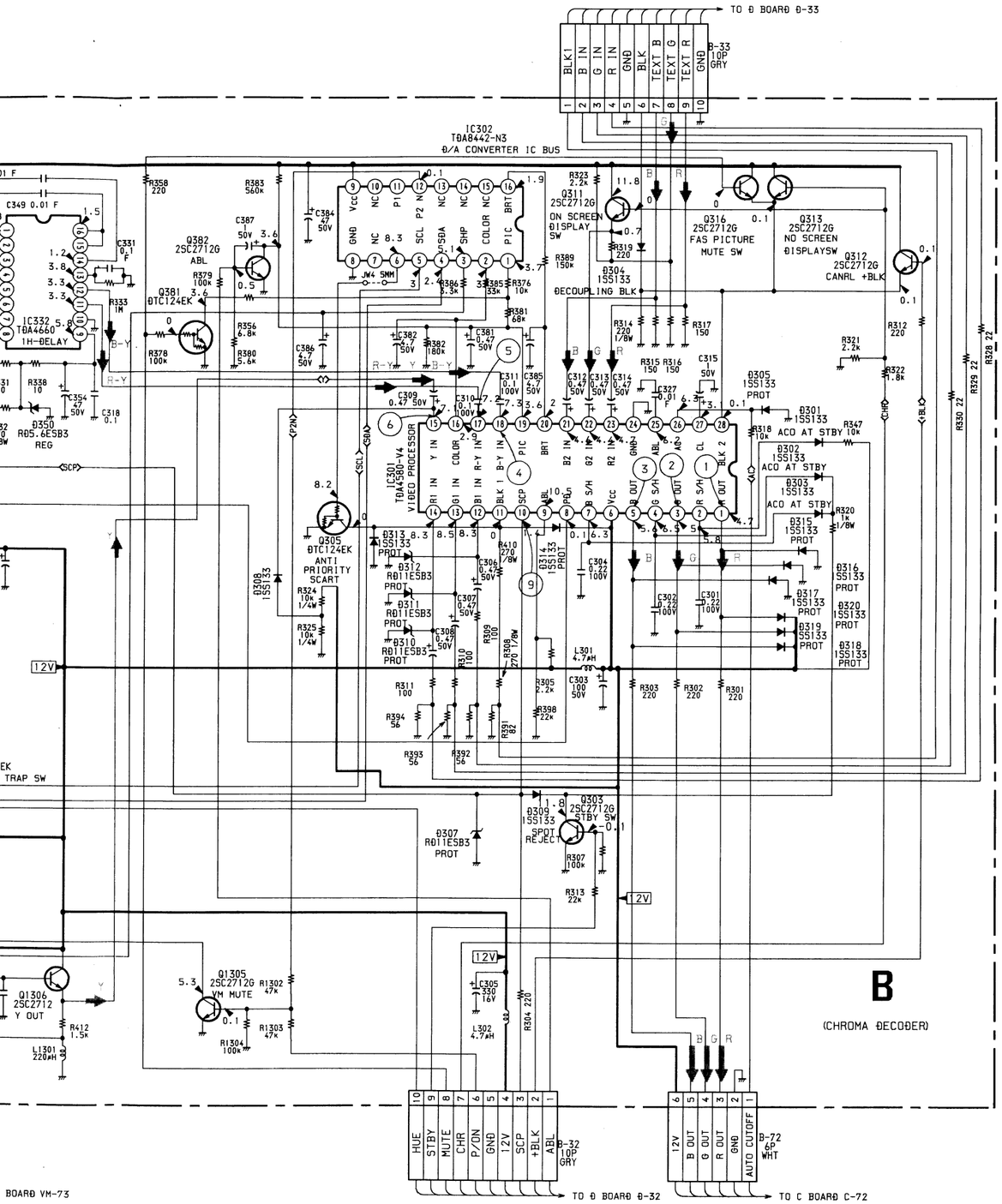
As to the voltage value shown by the mark in the Schematic Diagram, see the another table.

		PAL	SECAM	NTSC3.58
IC331	(2)	7.5	7.3	7.5
	(4)	7.5	7.2	7.5
	(5)	10	10	10
	(6)	10	10	10
	(7)	4.9	3.4	4.9
	(8)	3.7	3	3.8
	(9)	3.7	3	3.8
	(10)	5	3.4	4.9
Q331	(B)	0.1	0.1	0.1
	(C)	0.5	0.5	0.5
Q334	(B)	4.9	0.1	4.9
	(E)	4.3	4.6	4.3
Q335	(B)	0.1	5.3	0.1
	(E)	4.3	4.6	4.3

B BOARD IC301 TDA45



7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23



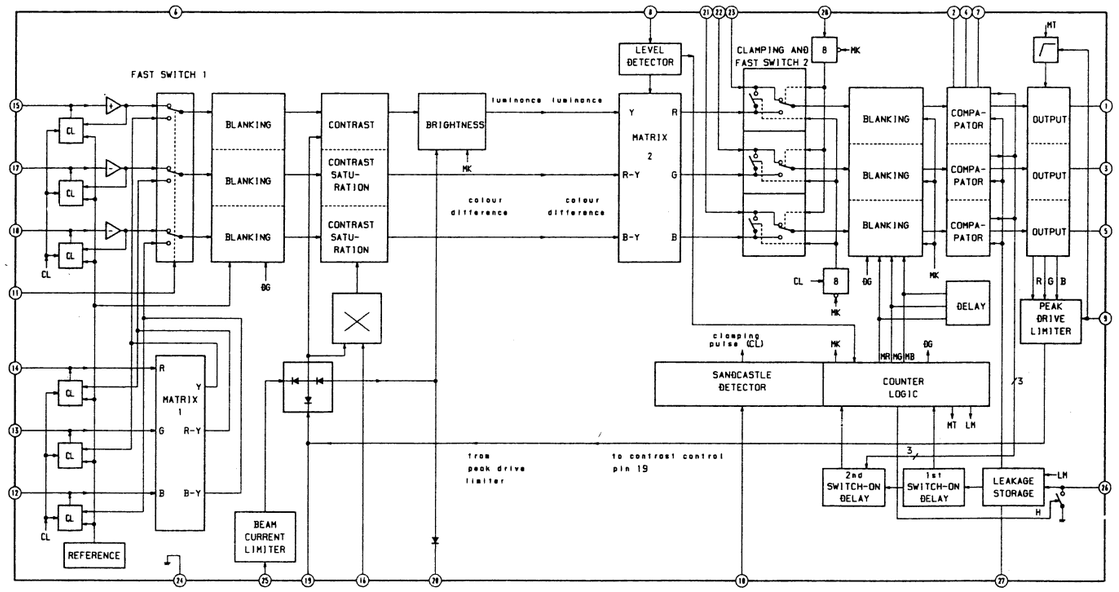
As to the voltage value shown by the mark ✱ on the Schematic Diagram, see the another list.

		PAL	SECAM	NTSC3.58	NTSC4.43
IC331	(2)	7.5	7.3	7.5	7.4
	(4)	7.5	7.2	7.5	7.4
	(5)	10	10	10	9.8
	(6)	10	10	10	9.9
	(7)	4.9	3.4	4.9	4.9
	(8)	3.7	3	3.8	3.8
	(9)	3.7	3	3.8	3.8
	(10)	5	3.4	4.9	4.9
Q331	(B)	0.1	0.1	0.1	5.8
	(C)	0.5	0.5	0.5	0
Q334	(B)	4.9	0.1	4.9	4.9
	(E)	4.3	4.6	4.3	4.3
Q335	(B)	0.1	5.3	0.1	0.1
	(E)	4.3	4.6	4.3	4.3

• WAVEFORMS B BOARD

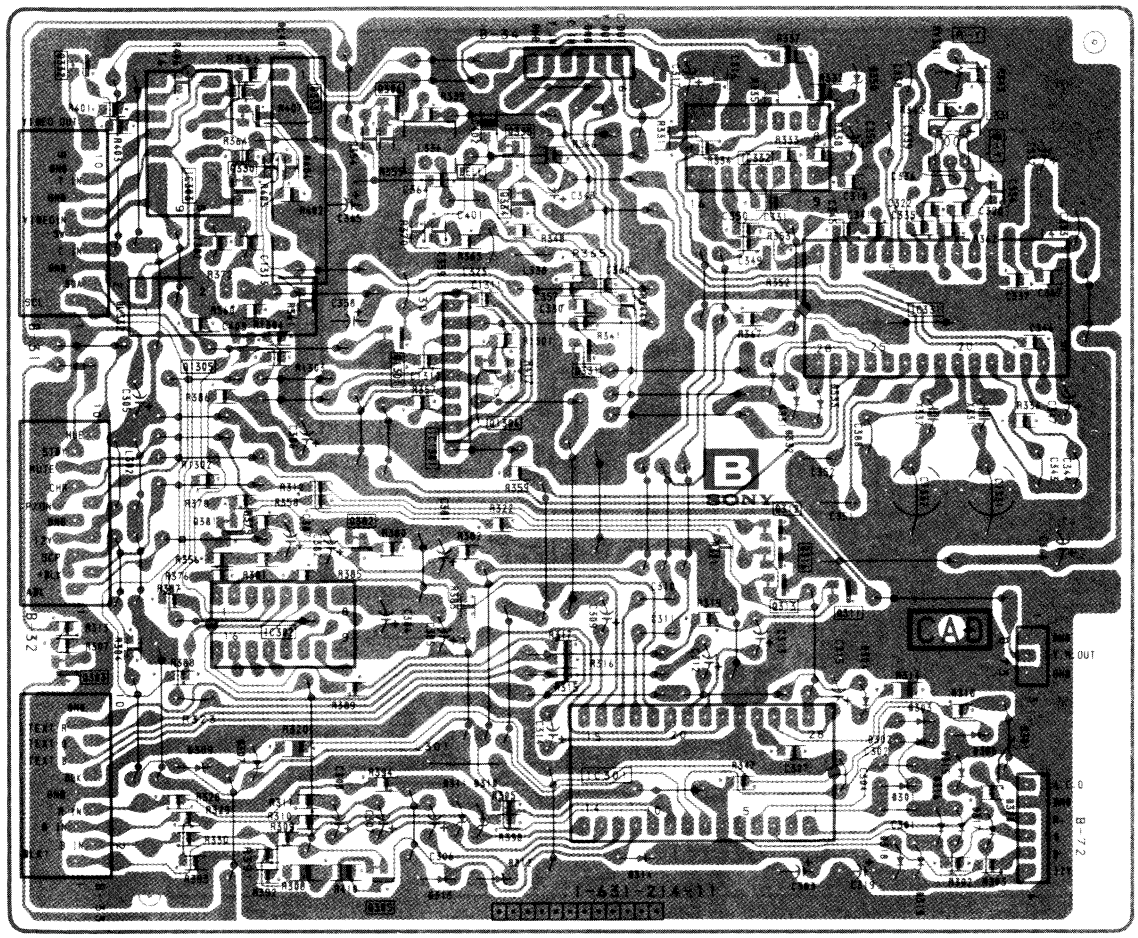
① 5.5Vp-p (H)	② 5.5Vp-p (H)	③ 5.5Vp-p (H)
④ 1.3Vp-p (H)	⑤ 1 Vp-p (H)	⑥ 0.4Vp-p (H)
⑦ 0.4Vp-p (H)	⑧ PAL NTSC 3.58 4.43 0.16Vp-p (H)	⑧ SECAM 0.1Vp-p (H)
⑨ 10 Vp-p (H)	⑩ SECAM 1 Vp-p (H)	⑪ SECAM 0.13Vp-p (H)
⑫ 1 Vp-p (H)	⑬ 1 Vp-p (H)	

B BOARD IC301 TDA4580

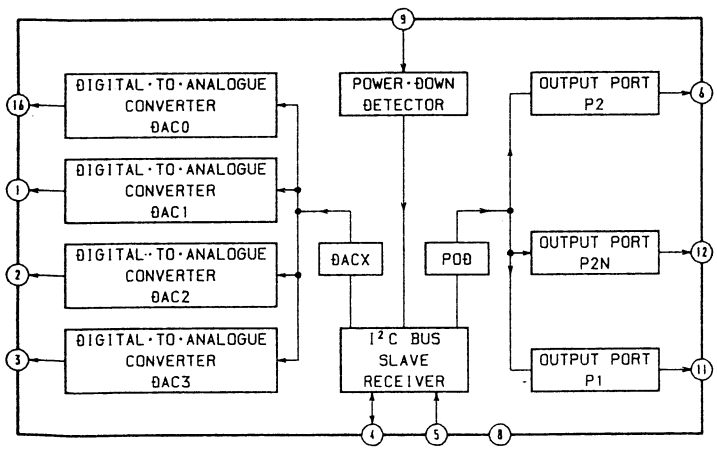


B [CHROMA DECODER]

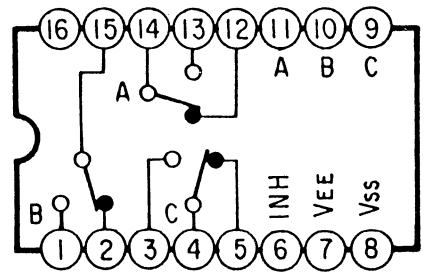
—B Board—



B BOARD IC302 TDA8442-N3

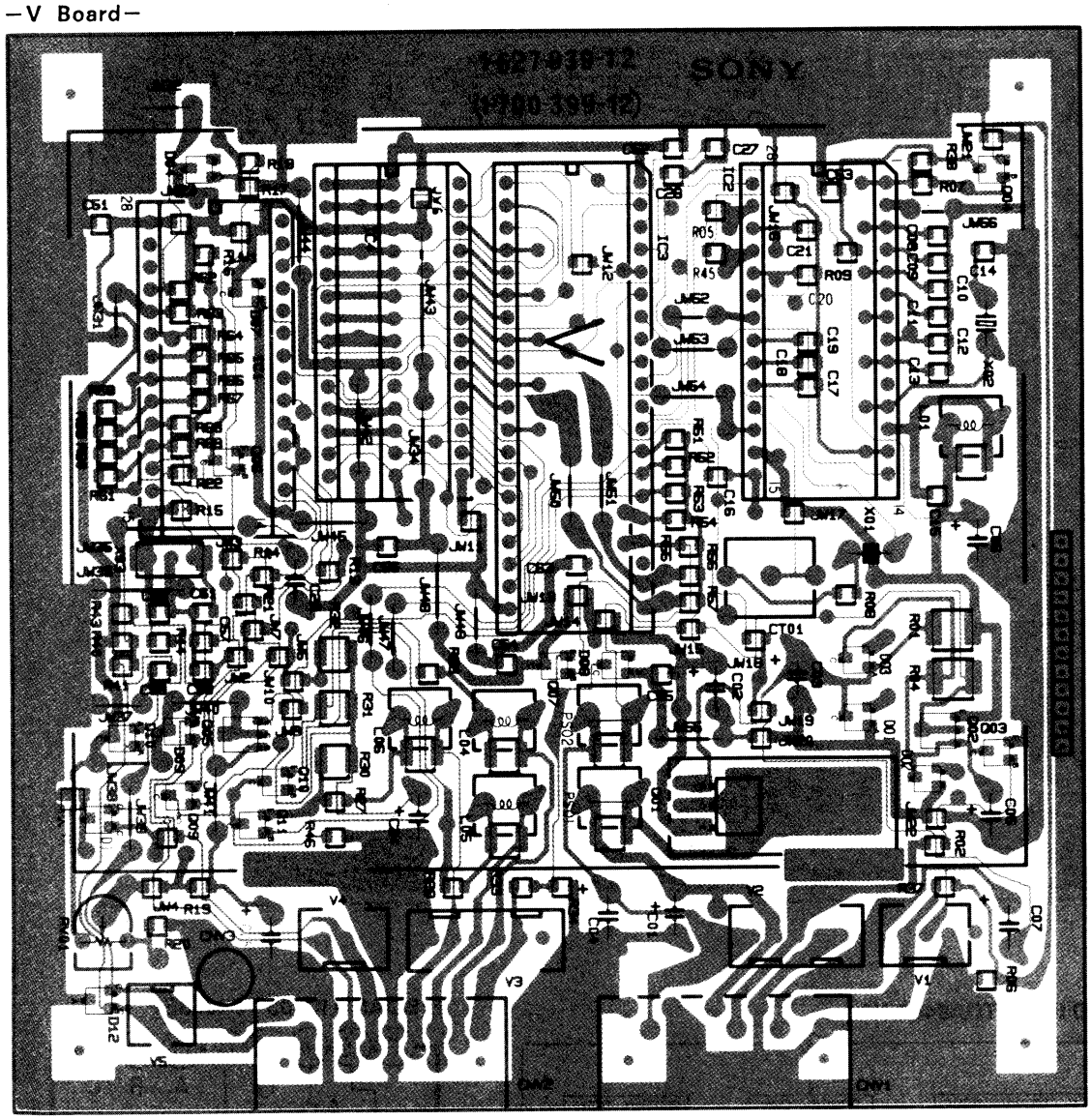


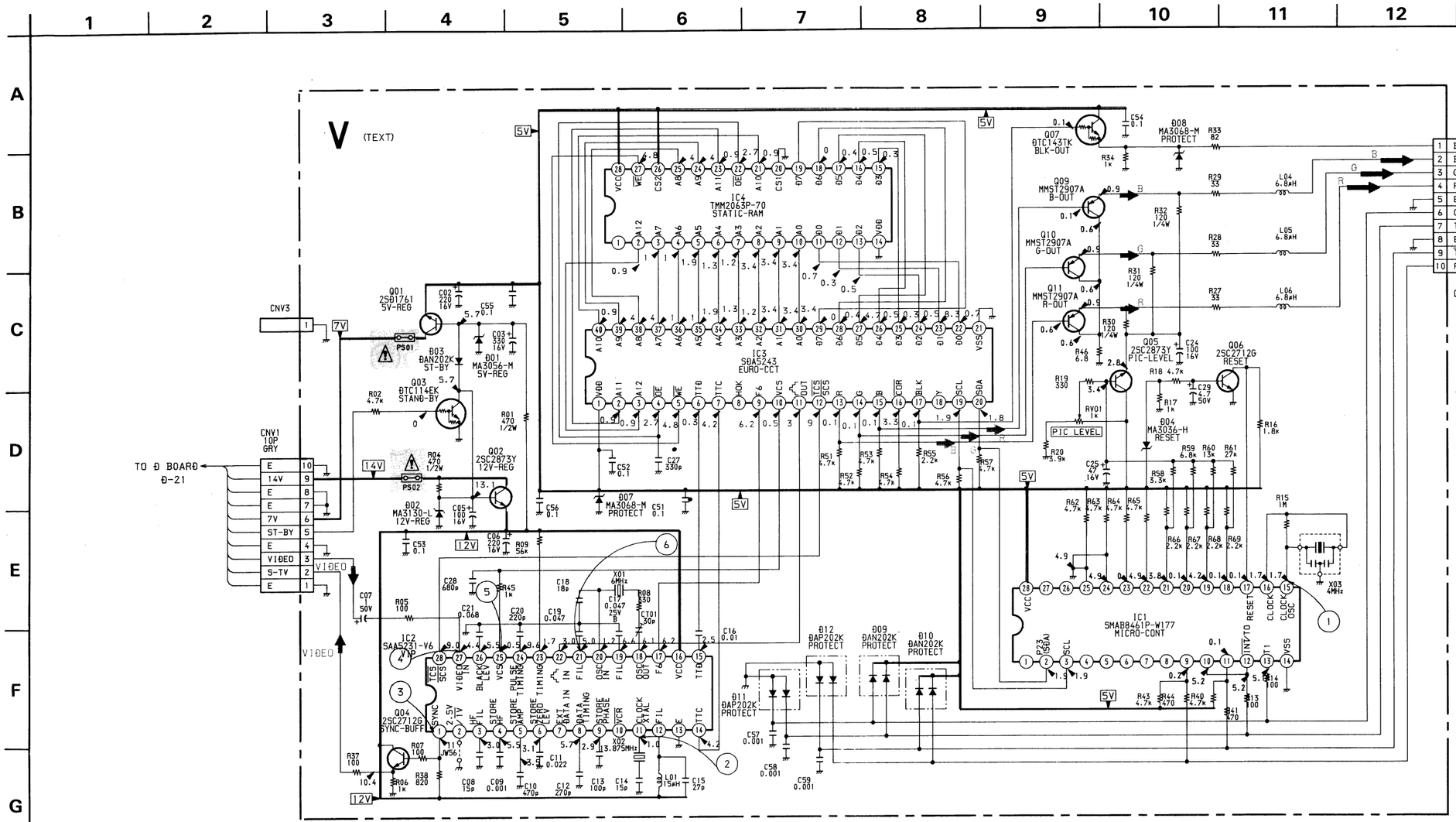
B BOARD IC303 TC4053BP



V [TEXT]

—V Board—



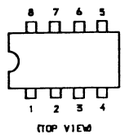


• **WAVEFORMS V BOARD**

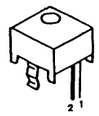
① 3.5Vp-p (4MHz)	② 0.56Vp-p (8.75MH)	③ 1 Vp-p (H)
④ 1 Vp-p (H)	⑤ 2.9Vp-p (H)	⑥ 0.4Vp-p (4MHz)

5-4. SEMICONDUCTORS

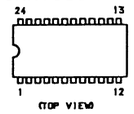
BA4558
RC4558P
SΘA2546
TEA2014
TEA2031A



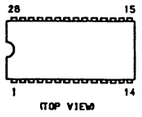
BX1387



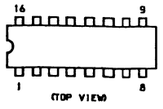
CXA1050A



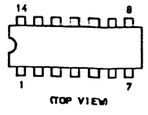
CXA1114P
TΘA4580
TΘA4650
TΘA6200
TEA2028B
2AA5231-V6
SMAB8461P-W177
TMM2063P-70



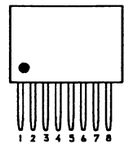
HΘ14040BP
HΘ14053BP
PCF8574P
TC4040BP
TC4053BP
TΘA4660
TΘA8442-N3
TEA2260



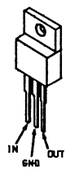
HΘ14584BP
μPΘ4584BC



HIC2110

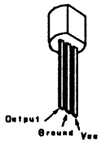


M5F7805
RC7809FA
RC7812FA
μPC24M05HF
μPC7812H

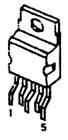


SΘA5243
SAB2083

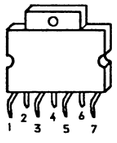
TA78005AP
TA78009AP



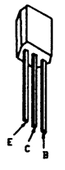
TΘA2500



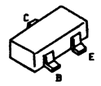
TΘA8170



ΘTA144ES
ΘTC114ES
2SA1162

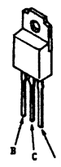


ΘTC124EK
MMST2907A
2SA1162G

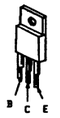


JA101
JC501
2SA1091
2SA733
2SΘ789

2SB1185
2SΘ1761



2SΘ1913SA
2SB1274



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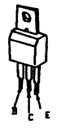
2SΘ774

2SC1761



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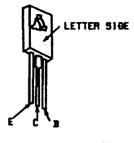

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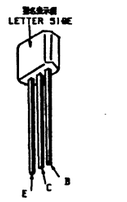

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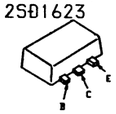
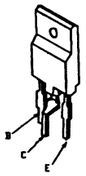
2SΘ1623

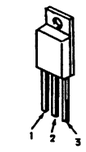


2SΘ1548-LB
2SΘ1941

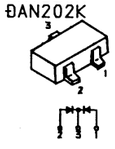


2SΘ2096

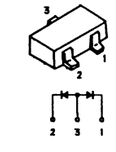
CTU-12S



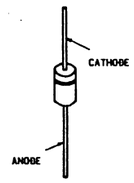
MA152WK
ΘAN202K



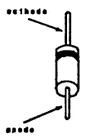
ΘAP-202K



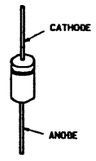
ERC06-15S
ERC25-06S
RU-3AM



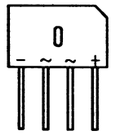
ERΘ29-08J



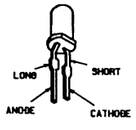
ES1F
GP08Θ
RGP10G



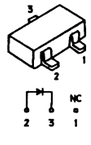
KBU4JL-6088



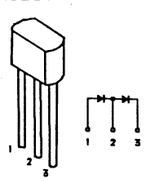
LΘ-210VR
SEL-1222R-C



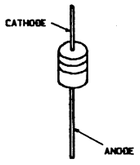
MA3036H
MA3056M
MA3068M
MA3130L
RΘ3.6M-B2
RΘ6.8M-B2
RΘ13M-B1
RΘ5.6M-B2



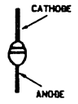
MC931



RΘ10ES-B3
RΘ11ES-B3
RΘ13ES-B2
RΘ15ES-B1
RΘ33ES-B1
RΘ36ES-B4
RΘ4.7ES-B2
RΘ5.6ES-B2
RΘ5.6ES-B3
RΘ6.2ES-B2
RΘ6.8ES-B3
RΘ7.5ES-B3
RΘ9.1ES-B2
RΘ9.1ES-B3
1SS119
1SS133



U05G



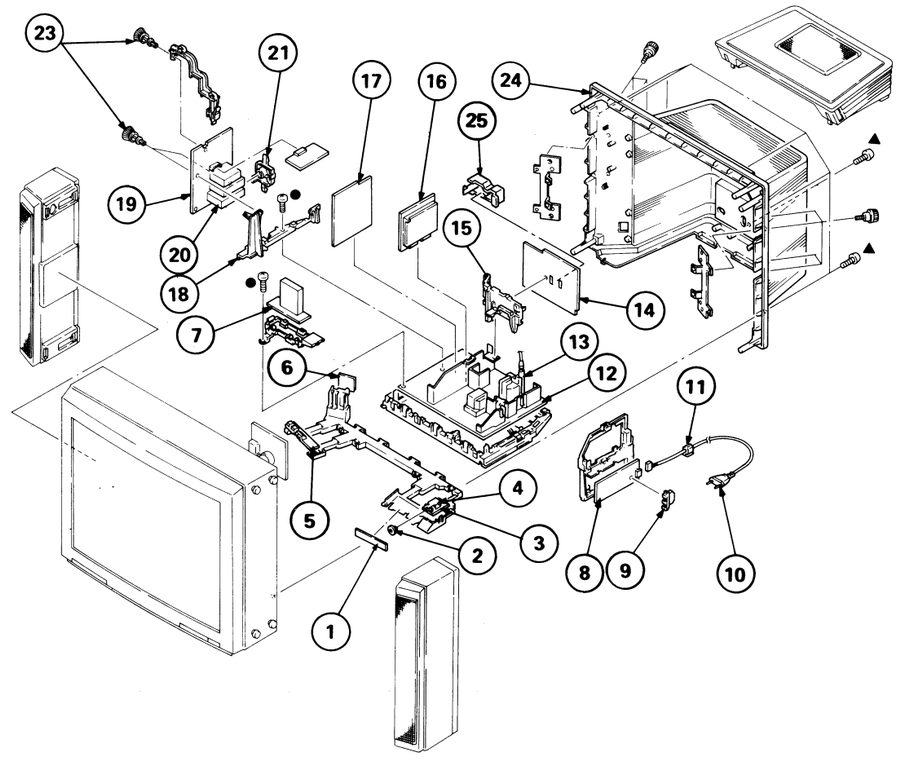
SECTION 6
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. CHASSIS

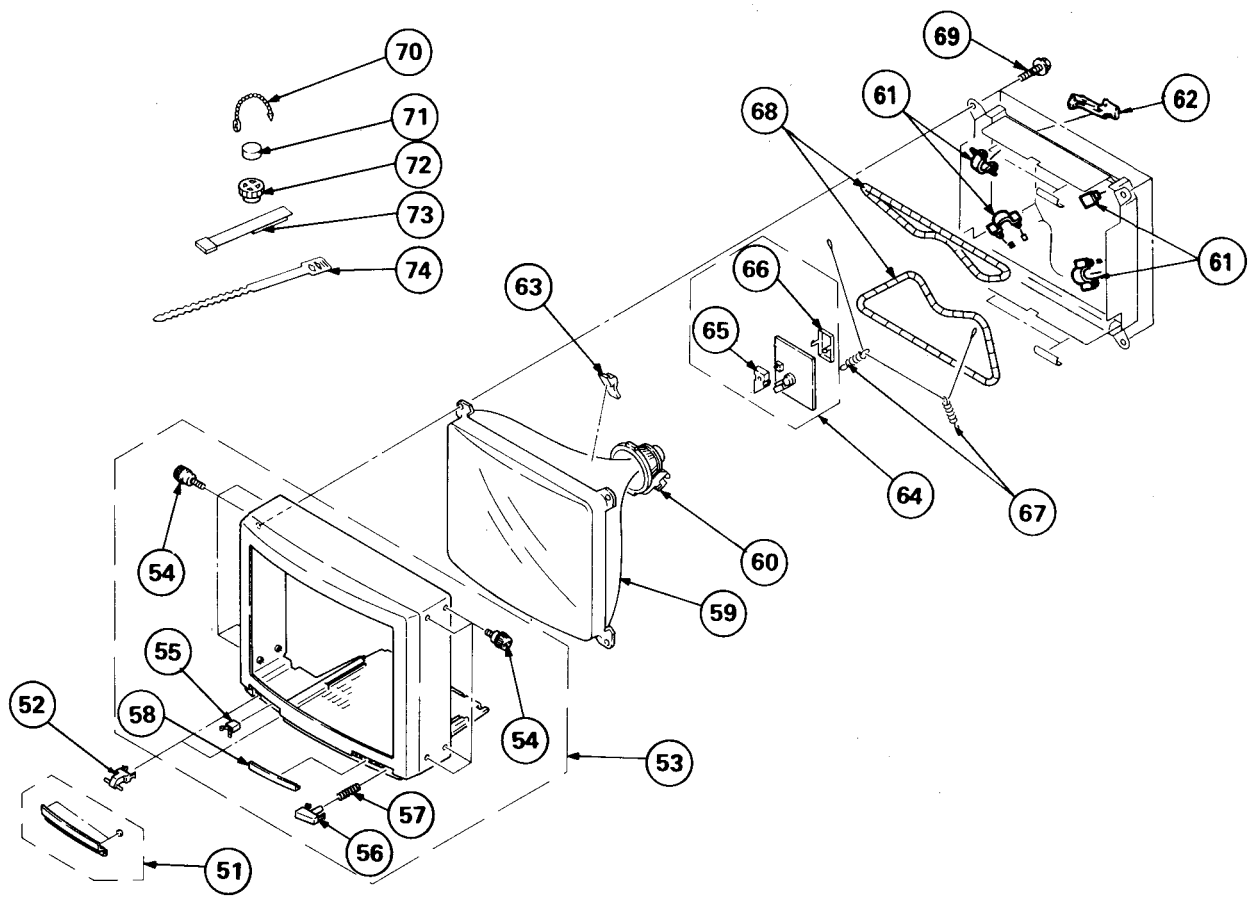
● : BVTP3 × 12 7-685-648-79
▲ : BVTP4 × 16 7-685-663-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	*1-631-221-11	H2 BOARD	
2	4-201-011-01	CAP, SWITCH	
3	*1-631-223-11	F2 BOARD	
4	⚠1-571-433-11	**SWITCH, PUSH (AC POWER)**	
5	*1-631-220-11	H1 BOARD	
6	*1-631-222-11	J2 BOARD	
7	*1-631-217-11	Y BOARD	
8	*1-631-216-11	F1 BOARD	
9	*4-386-620-02	COVER, POWER	
10	⚠1-575-487-11	**CORD, POWER (WITH NOISE FILTER)**	
11	⚠4-389-201-02	**HOLDER, AC CORD**	
12	*A-1642-002-A	D BOARD, COMPLETE	
13	⚠1-439-416-11	**TRANSFORMER ASSY, FLYBACK (UX-1600)**	
14	*A-1651-003-A	J1 BOARD, COMPLETE	
15	*4-386-624-11	BRACKET, J	
16	*A-1347-031-A	V BOARD, COMPLETE	
17	*A-1621-001-A	B BOARD, COMPLETE	
18	*4-386-629-12	BRACKET, A	
19	*A-1632-001-A	A BOARD, COMPLETE	
20	⚠1-465-301-11	**TUNER, ET (UV-816 (PLL))**	
21	*4-386-617-01	HOLDER, TERMINAL	
23	4-386-618-01	RIVET, T TYPE	
24	4-201-017-01	COVER, REAR	
25	4-200-014-01	BRACKET, TERMINAL	

6-2. PICTURE TUBE

●: BVTP3 × 12 7-685-648-79

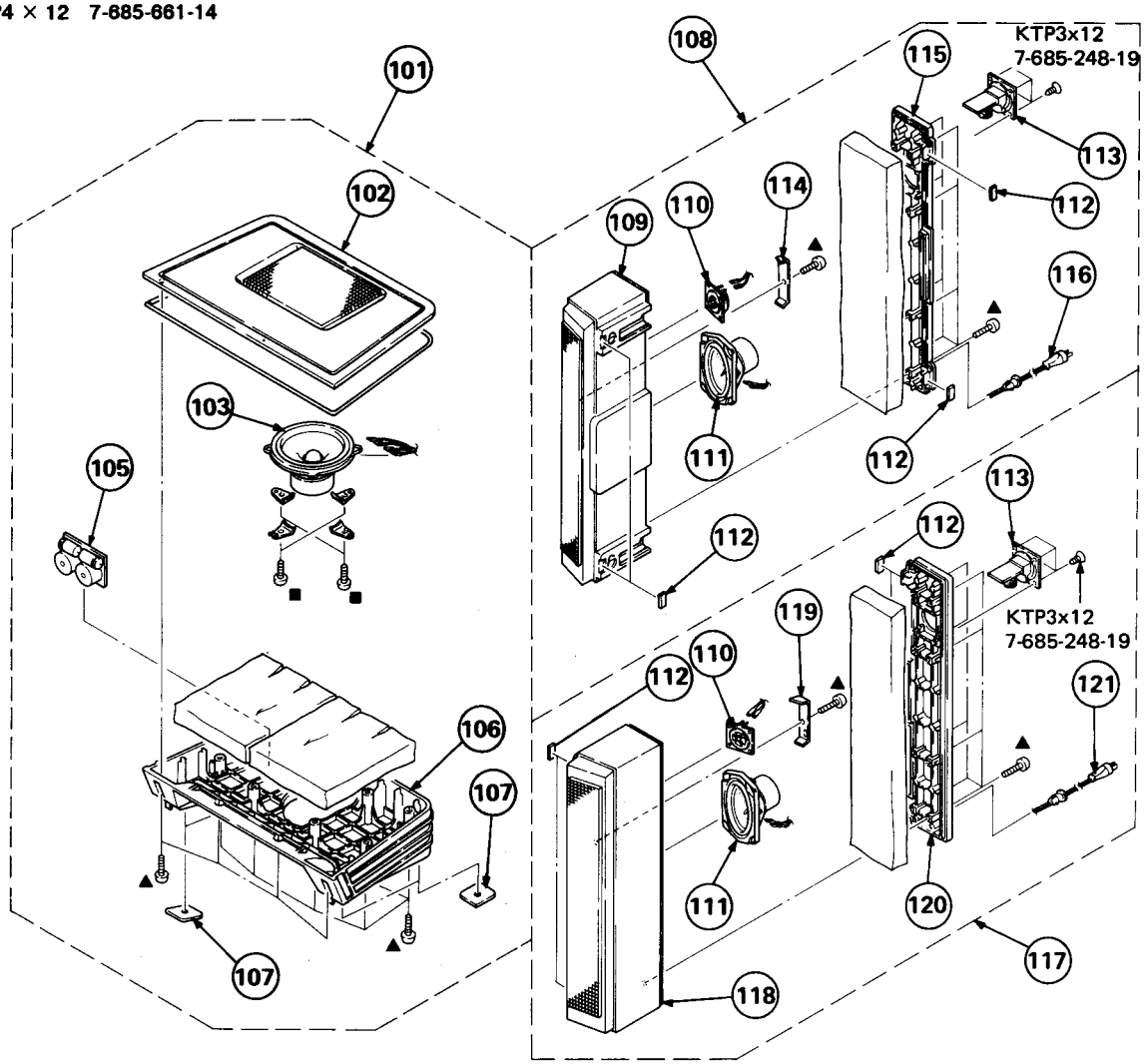


The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4201-006-2	DOOR ASSY, CONTROL	
52	3-703-035-11	SHAFT, LID	
53	X-4201-005-1	CABINET ASSY (WITH BEZEL ASSY)	54-58
54	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
55	4-386-710-01	CATCHER, PUSH	
56	4-200-013-01	BUTTON, POWER	
57	4-329-112-21	SPRING	
58	4-200-017-12	WINDOW, ORNAMENTAL	
59	⚠ 8-733-224-05	PICTURE TIBE (A59JWC60X)	
60	⚠ 1-451-311-31	DEFLECTION YOKE (Y25FXA)	
61	4-385-916-01	HOLDER (D)	
62	4-387-216-01	HOLDER LEAD	
63	3-703-961-01	SPACER, DY	
64	*A-1638-002-A	C BOARD, COMPLETE	65,66
65	*4-379-167-01	COVER (MAIN), CV	
66	*4-379-160-01	COVER (REAR LID), CV	
67	4-303-774-99	SPRING	
68	⚠ 1-426-372-11	COIL, DEMAGNETIZATION	
69	4-373-263-01	SCREW (M), PT	
70	4-308-870-00	CLIP, LEAD WIRE	
71	1-452-032-00	MAGNET, DISK; 10MM ϕ	
72	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ϕ	
73	X-4387-214-1	PERMALLOY ASSY, CORRECTION	
74	3-701-007-00	BAND, BINDING	

6-3. SPEAKER(L, R, WOOFER)

▲: BVTP4 × 16 7-685-663-79
■: BVTP4 × 12 7-685-661-14



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*A-1678-001-A	BOX ASSY, WOOFER	102-107
102	X-4200-004-2	BOARD ASSY, BAFFLE	
103	1-544-192-11	SPEAKER	
105	1-236-549-11	NETWORK, DIVIDING	
106	4-200-027-01	BOX, WOOFER	
107	4-200-009-01	CUSHION, FOOT	
108	*A-1678-012-A	BOX ASSY (LEFT), SPEAKER	109-116
109	X-4201-003-1	BOX ASSY (L), SIDE	
110	1-544-203-11	SPEAKER	
111	1-544-204-11	SPEAKER	
112	4-200-006-01	CUSHION, FOOT	
113	1-236-510-21	NETWORK, DIVIDING	
114	*4-200-003-02	BRACKET (L), SPEAKER	
115	4-201-007-01	PANEL (L), REAR	
116	1-575-025-11	CORD, SPEAKER (WITH PLUG)	
117	*A-1678-010-A	BOX ASSY (RIGHT), SPEAKER 110-113, 118-121	
118	X-4201-004-1	BOX ASSY (R), SIDE	
119	*4-200-004-02	BRACKET (R), SPEAKER	
120	4-201-006-01	PANEL (R), REAR	
121	1-575-024-11	CORD, SPEAKER (WITH PLUG)	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

Note: In this parts list, the mounting diagram is for a different product.
Therefore, an excess of parts is listed.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1347-031-A	V BOARD, COMPLETE **********			
	*4-380-698-01	CASE (MAIN), SHIELD, A1			
	*4-380-699-01	CASE (UPPER LID), SHIELD, A1			
	*4-382-704-01	CASE (BOTTOM LID), SHIELD, A2			
		<CAPACITOR>			
C02	1-124-120-11	ELECT	220MF	20% 16V	
C03	1-124-119-00	ELECT	330MF	20% 16V	
C05	1-126-101-11	ELECT	100MF	20% 16V	
C06	1-124-120-11	ELECT	220MF	20% 16V	
C07	1-124-791-11	ELECT	1MF	20% 50V	
C08	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C09	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C10	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C11	1-163-037-11	CERAMIC CHIP	0.022MF	10% 25V	
C12	1-163-127-00	CERAMIC CHIP	270PF	5% 50V	
C13	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C14	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C15	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C16	1-164-232-11	CERAMIC CHIP	0.01MF	10% 50V	
C17	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C18	1-163-099-00	CERAMIC CHIP	18PF	5% 50V	
C19	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C20	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	
C21	1-163-833-00	CERAMIC CHIP	0.068MF	25V	
C24	1-126-101-11	ELECT	100MF	20% 16V	
C25	1-124-477-11	ELECT	47MF	20% 16V	
C27	1-163-129-00	CERAMIC CHIP	330PF	5% 50V	
C28	1-163-137-00	CERAMIC CHIP	680PF	5% 50V	
C29	1-124-927-11	ELECT	4.7MF	20% 50V	
C51	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C52	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C53	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C54	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C55	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C56	1-163-038-00	CERAMIC CHIP	0.1MF	25V	
C57	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C58	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
C59	1-163-141-00	CERAMIC CHIP	0.001MF	5% 50V	
		<CONNECTOR>			
CNV01	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV02	*1-565-393-11	CONNECTOR, BOARD TO BOARD			
CNV03	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
		<TRIMMER>			
CT01	1-141-392-11	CAP, VAR, TRIMMER (1 GANG)			
		<DIODE>			
D01	8-719-105-91	DIODE RD5.6M-B2			
D02	8-719-106-79	DIODE RD13M-B2			
D03	8-719-400-18	DIODE MA152WK			
D04	8-719-105-52	DIODE RD3.6M-B2			
D07	8-719-106-17	DIODE RD6.8M-B2			
D08	8-719-106-17	DIODE RD6.8M-B2			
D09	8-719-400-18	DIODE MA152WK			
D10	8-719-400-18	DIODE MA152WK			
D11	8-719-914-44	DIODE DAP202K			
D12	8-719-914-44	DIODE DAP202K			
		<IC>			
IC1	8-759-986-92	IC SMAB8461P-W177			
IC2	8-759-972-96	IC SAA5231-V6			
IC3	8-759-032-98	IC SDA5243			
IC4	8-759-230-68	IC TMM2063P-70			
		<COIL>			
L01	1-408-411-00	INDUCTOR	150UH		
L04	1-408-407-00	INDUCTOR	6.8UH		
L05	1-408-407-00	INDUCTOR	6.8UH		
L06	1-408-407-00	INDUCTOR	6.8UH		
		<IC LINK>			
PS01	⚠1-532-679-91	LINK, IC (ICP-N15)			
PS02	⚠1-532-727-91	LINK, IC			
		<TRANSISTOR>			
Q3	8-729-900-53	TRANSISTOR DTC114EK			
Q01	8-729-808-76	TRANSISTOR 2SD1913SA			
Q02	8-729-807-50	TRANSISTOR 2SD1623-R			
Q04	8-729-271-22	TRANSISTOR 2SC2712-G			
Q05	8-729-807-50	TRANSISTOR 2SD1623-R			
Q06	8-729-271-22	TRANSISTOR 2SC2712-G			
Q07	8-729-900-98	TRANSISTOR DTC143TK			
Q09	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q10	8-729-807-87	TRANSISTOR 2SB1295-UL6			
Q11	8-729-807-87	TRANSISTOR 2SB1295-UL6			
		<RESISTOR>			
JW1	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW2	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW3	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW4	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW5	1-216-295-00	METAL GLAZE	0	5% 1/10W	

V B

REF.NO.	PART NO.	DESCRIPTION				REMARK
JW6	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW7	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW8	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW9	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW10	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW11	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW12	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW13	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW14	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW15	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW16	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW17	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW18	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW19	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW20	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW21	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW22	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW23	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW24	1-216-295-00	METAL GLAZE	0	5%	1/10W	
JW25	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R01	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R02	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R04	1-218-326-11	METAL GLAZE	470	5%	1/2W	
R05	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R06	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R07	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R08	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R09	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R13	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R14	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R15	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R16	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R17	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R18	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R19	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R20	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R27	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R28	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R29	1-216-013-00	METAL GLAZE	33	5%	1/10W	
R30	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R31	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R32	1-218-325-11	METAL GLAZE	120	5%	1/4W	
R33	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R34	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R37	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R38	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R40	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R41	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R43	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R44	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R45	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R46	1-216-311-00	METAL GLAZE	6.8	5%	1/10W	
R51	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R52	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R53	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R54	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R55	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R57	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R58	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R59	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R60	1-216-076-00	METAL GLAZE	13K	5%	1/10W	
R61	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R62	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R63	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R65	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R66	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R67	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R68	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R69	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	

<VARIABLE RESISTOR>

RV01	1-238-012-11	RES, ADJ, CARBON 1K

<CRYSTAL>

X01	1-567-162-21	OSCILLATOR, CRYSTAL
X02	1-567-495-21	OSCILLATOR, CRYSTAL
X03	1-577-082-11	VIBRATOR, CERAMIC

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*A-1621-001-A	B BOARD, COMPLETE	
	**********	
*1-565-393-11	CONNECTOR, BOARD TO BOARD	
*1-568-878-51	PIN, CONNECTOR 3P	
*1-568-881-51	PIN, CONNECTOR 6P	
*1-568-881-61	PIN, CONNECTOR 6P	

<CAPACITOR>

C301	1-106-228-00	MYLAR	0.22MF	10%	100V
C302	1-106-228-00	MYLAR	0.22MF	10%	100V
C303	1-124-122-11	ELECT	100MF	20%	50V
C304	1-106-228-00	MYLAR	0.22MF	10%	100V
C305	1-124-119-00	ELECT	330MF	20%	16V
C306	1-124-902-00	ELECT	0.47MF	20%	50V
C307	1-124-902-00	ELECT	0.47MF	20%	50V
C308	1-124-902-00	ELECT	0.47MF	20%	50V
C309	1-124-902-00	ELECT	0.47MF	20%	50V
C310	1-106-220-00	MYLAR	0.1MF	10%	100V
C311	1-106-220-00	MYLAR	0.1MF	10%	100V
C312	1-124-902-00	ELECT	0.47MF	20%	50V
C313	1-124-902-00	ELECT	0.47MF	20%	50V
C314	1-124-902-00	ELECT	0.47MF	20%	50V
C315	1-124-791-11	ELECT	1MF	20%	50V
C316	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C317	1-124-910-11	ELECT	47MF	20%	50V
C318	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C320	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C323	1-102-947-00	CERAMIC	10PF	0.5PF	50V
C327	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C330	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C331	1-163-077-00	CERAMIC CHIP	0.1MF		50V
C332	1-126-103-11	ELECT	470MF	20%	16V
C333	1-106-375-12	MYLAR	0.022MF	10%	250V
C334	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C335	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C336	1-102-816-00	CERAMIC	120PF	5%	50V
C337	1-164-232-11	CERAMIC CHIP	0.01MF		50V
C338	1-106-220-00	MYLAR	0.1MF	10%	100V
C339	1-106-220-00	MYLAR	0.1MF	10%	100V
C341	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C343	1-106-383-00	MYLAR	0.047MF	10%	100V
C344	1-130-783-00	MYLAR	0.33MF	10%	100V

REF.NO.	PART NO.	DESCRIPTION		REMARK
C345	1-163-123-00	CERAMIC CHIP 180PF	5%	50V
C346	1-163-033-00	CERAMIC CHIP 0.022MF		50V
C347	1-124-791-11	ELECT 1MF	20%	50V
C348	1-124-791-11	ELECT 1MF	20%	50V
C349	1-164-232-11	CERAMIC CHIP 0.01MF		50V
C350	1-164-232-11	CERAMIC CHIP 0.01MF		50V
C351	1-106-375-12	MYLAR 0.022MF	10%	250V
C352	1-106-375-12	MYLAR 0.022MF	10%	250V
C353	1-106-375-12	MYLAR 0.022MF		250V
C354	1-124-910-11	ELECT 47MF	20%	50V
C357	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C358	1-124-917-11	ELECT 33MF	20%	50V
C359	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C360	1-164-232-11	CERAMIC CHIP 0.01MF		50V
C364	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C365	1-124-910-11	ELECT 47MF	20%	50V
C366	1-126-103-11	ELECT 470MF	20%	16V
C367	1-164-232-11	CERAMIC CHIP 0.01MF		50V
C381	1-124-902-00	ELECT 0.47MF	20%	50V
C382	1-124-927-11	ELECT 4.7MF	20%	50V
C384	1-124-910-11	ELECT 47MF	20%	50V
C385	1-124-927-11	ELECT 4.7MF	20%	50V
C386	1-124-927-11	ELECT 4.7MF	20%	50V
C387	1-124-791-11	ELECT 1MF	20%	50V
C388	1-106-220-00	MYLAR 0.1MF	10%	100V
C401	1-101-361-00	CERAMIC 150PF	5%	50V
C402	1-163-197-00	CERAMIC CHIP 470PF	5%	50V
C403	1-164-232-11	CERAMIC CHIP 0.01MF		50V
C1311	1-163-105-00	CERAMIC CHIP 33PF	5%	50V
C1312	1-163-101-00	CERAMIC CHIP 22PF	5%	50V
C1313	1-102-953-00	CERAMIC 18PF	5%	50V

<TRIMMER>

CT331	1-141-181-11	CAP,TRIMMER
CT332	1-141-181-11	CAP,TRIMMER

<DIODE>

D301	8-719-911-19	DIODE 1SS119
D302	8-719-911-19	DIODE 1SS119
D303	8-719-911-19	DIODE 1SS119
D304	8-719-911-19	DIODE 1SS119
D305	8-719-911-19	DIODE 1SS119
D307	8-719-110-23	DIODE RD11ES-B3
D308	8-719-911-19	DIODE 1SS119
D309	8-719-911-19	DIODE 1SS119
D310	8-719-110-23	DIODE RD11ES-B3
D311	8-719-110-23	DIODE RD11ES-B3
D312	8-719-110-23	DIODE RD11ES-B3
D313	8-719-911-19	DIODE 1SS119
D314	8-719-911-19	DIODE 1SS119
D315	8-719-911-19	DIODE 1SS119
D316	8-719-911-19	DIODE 1SS119
D317	8-719-911-19	DIODE 1SS119
D318	8-719-911-19	DIODE 1SS119
D319	8-719-911-19	DIODE 1SS119
D320	8-719-911-19	DIODE 1SS119
D331	8-719-911-19	DIODE 1SS119
D332	8-719-911-19	DIODE 1SS119
D333	8-719-911-19	DIODE 1SS119
D350	8-719-109-90	DIODE RD5.6ES-B3

REF.NO.	PART NO.	DESCRIPTION	REMARK

<DELAY LINE>

DL332	1-236-062-11	MODULE, Y DELAY LINE	
DL401	1-415-613-11	DELAY LINE, Y	

<IC>

IC301	8-759-979-85	IC TDA4580-V4	
IC302	8-759-980-60	IC TDA8442-N3	
IC303	8-759-240-53	IC TC4053BP	
IC331	8-759-990-29	IC TDA4650	
IC332	8-759-990-30	IC TDA4660	
IC1301	1-235-534-21	CONTROL MODULE, PICTURE	

<COIL>

L301	1-410-868-21	INDUCTOR	4.7UH
L302	1-410-868-21	INDUCTOR	4.7UH
L331	1-404-554-11	COIL	
L336	1-404-554-11	COIL	
L338	1-408-409-00	INDUCTOR	10UH
L1301	1-408-425-00	INDUCTOR	220UH
L1302	1-408-419-00	INDUCTOR	68UH

<TRANSISTOR>

Q303	8-729-271-22	TRANSISTOR 2SC2712-G
Q305	8-729-901-00	TRANSISTOR DTC124EK
Q306	8-729-271-22	TRANSISTOR 2SC2712-G
Q311	8-729-271-22	TRANSISTOR 2SC2712-G
Q312	8-729-271-22	TRANSISTOR 2SC2712-G
Q313	8-729-271-22	TRANSISTOR 2SC2712-G
Q316	8-729-271-22	TRANSISTOR 2SC2712-G
Q330	8-729-216-22	TRANSISTOR 2SA1162
Q331	8-729-901-00	TRANSISTOR DTC124EK
Q332	8-729-216-22	TRANSISTOR 2SA1162
Q333	8-729-216-22	TRANSISTOR 2SA1162
Q334	8-729-271-22	TRANSISTOR 2SC2712-G
Q335	8-729-271-22	TRANSISTOR 2SC2712-G
Q336	8-729-900-36	TRANSISTOR DTC124ES
Q381	8-729-901-00	TRANSISTOR DTC124EK
Q382	8-729-271-22	TRANSISTOR 2SC2712-G
Q1301	8-729-901-00	TRANSISTOR DTC124EK
Q1305	8-729-271-22	TRANSISTOR 2SC2712-G
Q1306	8-729-271-22	TRANSISTOR 2SC2712-G

<RESISTOR>

R301	1-216-033-00	METAL GLAZE	220	5%	1/10W
R302	1-216-033-00	METAL GLAZE	220	5%	1/10W
R303	1-216-033-00	METAL GLAZE	220	5%	1/10W
R304	1-216-033-00	METAL GLAZE	220	5%	1/10W
R305	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R307	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R308	1-216-184-00	METAL GLAZE	270	5%	1/8W
R309	1-216-025-00	METAL GLAZE	100	5%	1/10W
R310	1-216-025-00	METAL GLAZE	100	5%	1/10W
R311	1-216-025-00	METAL GLAZE	100	5%	1/10W
R312	1-216-033-00	METAL GLAZE	220	5%	1/10W
R313	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R314	1-216-182-00	METAL GLAZE	220	5%	1/8W
R315	1-216-031-00	METAL GLAZE	180	5%	1/10W
R316	1-216-031-00	METAL GLAZE	180	5%	1/10W
R317	1-216-031-00	METAL GLAZE	180	5%	1/10W
R318	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R319	1-216-033-00	METAL GLAZE	220	5%	1/10W

B F1

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R320	1-216-198-00	METAL GLAZE	1K	5%	1/8W	
R321	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R322	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R323	1-249-422-11	CARBON	2.7K	5%	1/4W	
R324	1-249-429-11	CARBON	10K	5%	1/4W	
R325	1-249-429-11	CARBON	10K	5%	1/4W	
R328	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R329	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R330	1-216-009-00	METAL GLAZE	22	5%	1/10W	
R331	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R332	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R333	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R334	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R335	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R336	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R337	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R338	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R339	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R340	1-247-903-00	CARBON	1M	5%	1/4W	
R341	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R342	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R344	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R346	1-216-202-00	METAL GLAZE	1.5K	5%	1/8W	
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R348	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R354	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R355	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R356	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R357	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R358	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R359	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R360	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R361	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R362	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R363	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R364	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R365	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R366	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R367	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R370	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R372	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R376	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R378	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R379	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R380	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R381	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R382	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R383	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R385	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R386	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R387	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R388	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R389	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R391	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R392	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R393	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R394	1-216-019-00	METAL GLAZE	56	5%	1/10W	
R398	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R401	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R402	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R403	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R404	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R405	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R406	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R407	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R410	1-216-184-00	METAL GLAZE	270	5%	1/8W	
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1303	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1304	1-216-097-00	METAL GLAZE	100K	5%	1/10W	

<VARIABLE RESISTOR>

RV331	1-238-012-11	RES, ADJ, CARBON 1K	

<CRYSTAL>

X331	1-567-307-11	OSCILLATOR, CRYSTAL	
X332	1-567-131-00	OSCILLATOR, CRYSTAL	

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	*1-631-216-11	F1 BOARD	
		********	
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
	*1-565-395-11	PIN, CONNECTOR 3P	
	*1-566-664-11	PIN, CONNECTOR 4P	
	*1-568-106-11	PIN, CONNECTOR 4P	
	*1-568-878-51	PIN, CONNECTOR 3P	

<CAPACITOR>

C1601⚠	1-136-518-11	FILM	0.33MF	20%	300V
C1602⚠	1-136-519-11	FILM	0.47MF	20%	300V
C1603⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1604⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1605⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1606⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V
C1607⚠	1-161-964-61	CERAMIC	0.0047MF		250V

<FUSE>

F1601⚠	1-532-350-11	FUSE, TIME-LAG 4A/250V	
	1-533-087-00	HOLDER, FUSE; F1601	

<TRANSFORMER>

LF1601⚠	1-421-866-12	LFT	
LF1602⚠	1-421-776-11	LFT	
LF1603⚠	1-421-592-21	TRANSFORMER, FERRITE	

<RESISTOR>

R1601⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1602⚠	1-244-945-91	CARBON	1M	5%	1/2W	
R1603⚠	1-217-328-11	WIREWOUND	2.7	10%	7W	F
R1604⚠	1-246-513-75	CARBON	47K	5%	1/4W	
R1605⚠	1-218-265-91	METAL GLAZE	8.2M	5%	1W	

<THERMISTOR>

THP601⚠	1-808-059-31	THERMISTOR, POSITIVE

****

F2 A C

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
	*1-631-223-11	F2 BOARD				
		********				
	*1-566-664-11	PIN, CONNECTOR 4P				
		<SWITCH>				
S1701⚠	1-571-433-11	SWITCH, PUSH (AC POWER)				
		**********				
	*A-1632-001-A	A BOARD, COMPLETE				
		**********				
	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
	*1-564-881-11	PLUG, CONNECTOR 4P				
	*1-564-886-11	PLUG, CONNECTOR 9P				
	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P				
	*1-566-659-11	CONNECTOR, HINGE (SOCKET) 18P				
		<CAPACITOR>				
C101	1-126-233-11	ELECT	22MF	20%	50V	
C102	1-126-103-11	ELECT	470MF	20%	16V	
C104	1-124-910-11	ELECT	47MF	20%	50V	
C106	1-126-233-11	ELECT	22MF	20%	50V	
C108	1-136-165-00	FILM	0.1MF	5%	50V	
C109	1-102-824-00	CERAMIC	470PF	5%	50V	
C111	1-124-925-11	ELECT	2.2MF	20%	50V	
C115	1-124-925-11	ELECT	2.2MF	20%	50V	
C127	1-124-122-11	ELECT	100MF	20%	50V	
C128	1-124-910-11	ELECT	47MF	20%	50V	
C129	1-124-910-11	ELECT	47MF	20%	50V	
C138	1-136-165-00	FILM	0.1MF	5%	50V	
C171	1-102-114-00	CERAMIC	470PF	10%	50V	
C172	1-102-114-00	CERAMIC	470PF	10%	50V	
C177	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C181	1-101-004-00	CERAMIC	0.01MF		50V	
		<IC>				
IC103	8-759-979-62	IC PCF8574				
		<COIL>				
L100	1-410-116-11	INDUCTOR	0.56MMH			
L101	1-408-225-00	INDUCTOR	3.3UH			
L102	1-408-413-00	INDUCTOR	22UH			
L107	1-408-397-00	INDUCTOR	1UH			
		<TRANSISTOR>				
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q125	8-729-900-89	TRANSISTOR DTC144ES				
Q126	8-729-900-65	TRANSISTOR DTA144ES				
Q181	8-729-119-78	TRANSISTOR 2SC2785-HFE				
		<RESISTOR>				
R101	1-249-405-11	CARBON	100	5%	1/4W	
R105	1-249-432-11	CARBON	18K	5%	1/4W	
R107	1-249-433-11	CARBON	22K	5%	1/4W	
R108	1-249-432-11	CARBON	18K	5%	1/4W	
R110	1-249-429-11	CARBON	10K	5%	1/4W	
R111	1-249-423-11	CARBON	3.3K	5%	1/4W	
R116	1-249-407-11	CARBON	150	5%	1/4W	
R118	1-249-435-11	CARBON	33K	5%	1/4W	
R128	1-249-406-11	CARBON	120	5%	1/4W	
R129	1-249-421-11	CARBON	2.2K	5%	1/4W	
R130	1-249-421-11	CARBON	2.2K	5%	1/4W	
R157	1-249-417-11	CARBON	1K	5%	1/4W	
R158	1-249-409-11	CARBON	220	5%	1/4W	
R159	1-249-409-11	CARBON	220	5%	1/4W	
R161	1-249-437-11	CARBON	47K	5%	1/4W	
R162	1-249-440-11	CARBON	82K	5%	1/4W	
R163	1-249-440-11	CARBON	82K	5%	1/4W	
R164	1-249-430-11	CARBON	12K	5%	1/4W	
R165	1-249-430-11	CARBON	12K	5%	1/4W	
R167	1-249-422-11	CARBON	2.7K	5%	1/4W	
R168	1-249-437-11	CARBON	47K	5%	1/4W	
R169	1-249-422-11	CARBON	2.7K	5%	1/4W	
R181	1-249-417-11	CARBON	1K	5%	1/4W	
R182	1-249-425-11	CARBON	4.7K	5%	1/4W	
R193	1-249-429-11	CARBON	10K	5%	1/4W	
R194	1-249-401-11	CARBON	47	5%	1/4W	
R195	1-249-401-11	CARBON	47	5%	1/4W	
		<IF BLOCK>				
SIF102	1-464-964-11	IF BLOCK (IFG-5.5S)				
VIF101	1-466-154-12	IF BLOCK (IFG-389S)				
		<TUNER>				
TU101⚠	1-465-301-11	TUNER, ET (UV-816(PLL))				
		**********				
	*A-1638-002-A	C BOARD, COMPLETE				
		**********				
	*1-506-371-00	PIN, CONNECTOR 2P				
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
	*1-568-878-61	PIN, CONNECTOR 3P				
	*1-568-881-51	PIN, CONNECTOR 6P				
	*4-379-160-01	COVER (REAR LID), CV				
	*4-379-167-01	COVER (MAIN), CV				
	*4-386-664-01	SPRING				
		<CAPACITOR>				
C703	1-102-980-00	CERAMIC	270PF	5%	50V	
C704	1-102-116-00	CERAMIC	680PF	10%	50V	
C705	1-102-978-00	CERAMIC	220PF	5%	50V	
C706	1-102-116-00	CERAMIC	680PF	10%	50V	
C707	1-162-116-00	CERAMIC	680PF	10%	2KV	
C708	1-162-114-00	CERAMIC	0.0047MF		2KV	
C709	1-102-116-00	CERAMIC	680PF	10%	50V	
C710	1-123-947-00	ELECT	10MF	20%	250V	
C711	1-101-880-00	CERAMIC	47PF	5%	50V	
C712	1-102-980-00	CERAMIC	270PF	5%	50V	
C714	1-124-360-00	ELECT	1000MF	20%	16V	
C716	1-162-622-11	CERAMIC	330PF	10%	400V	
C717	1-102-114-00	CERAMIC	470PF	10%	50V	
C718	1-102-114-00	CERAMIC	470PF	10%	50V	
C719	1-102-114-00	CERAMIC	470PF	10%	50V	

C **D**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<DIODE>				
D701	8-719-110-14	DIODE RD9.1ES-B3				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
D707	8-719-911-19	DIODE 1SS119				
D708	8-719-911-19	DIODE 1SS119				
D709	8-719-911-19	DIODE 1SS119				
D710	8-719-911-19	DIODE 1SS119				
D711	8-719-300-33	DIODE RU-3AM				
D713	8-719-911-19	DIODE 1SS119				
		<JACK>				
J701	1-526-798-51	SOCKET, PICTURE TUBE				
		<COIL>				
L704	1-410-878-21	INDUCTOR	33UH			
		<TRANSISTOR>				
Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q703	8-729-326-11	TRANSISTOR 2SC2611				
Q704	8-729-200-17	TRANSISTOR 2SA1091				
Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q707	8-729-200-17	TRANSISTOR 2SA1091				
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q709	8-729-326-11	TRANSISTOR 2SC2611				
Q710	8-729-200-17	TRANSISTOR 2SA1091				
		<RESISTOR>				
R704	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R705	1-202-824-00	SOLID	3.3K	10%	1/2W	
R706	1-249-409-11	CARBON	220	5%	1/4W	
R707	1-249-412-11	CARBON	390	5%	1/4W	
R708	1-249-401-11	CARBON	47	5%	1/4W	
R709	1-202-844-00	SOLID	330K	10%	1/2W	
R710	1-215-465-00	METAL	68K	1%	1/6W	
R712	1-249-417-11	CARBON	1K	5%	1/4W	
R713	1-215-471-00	METAL	120K	1%	1/6W	
R714	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R715	1-202-824-00	SOLID	3.3K	10%	1/2W	
R716	1-249-409-11	CARBON	220	5%	1/4W	
R717	1-249-415-11	CARBON	680	5%	1/4W	
R718	1-202-814-11	SOLID	33K	10%	1/2W	
R719	1-249-401-11	CARBON	47	5%	1/4W	
R720	1-249-423-11	CARBON	3.3K	5%	1/4W	
R721	1-202-842-11	SOLID	220K	10%	1/2W	
R722	1-202-848-00	SOLID	680K	10%	1/2W	
R723	1-249-417-11	CARBON	1K	5%	1/4W	
R724	1-202-846-00	SOLID	470K	10%	1/2W	
R725	1-202-838-00	SOLID	100K	10%	1/2W	
R726	1-202-824-00	SOLID	3.3K	10%	1/2W	
R727	1-249-409-11	CARBON	220	5%	1/4W	
R728	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R729	1-249-416-11	CARBON	820	5%	1/4W	
R730	1-249-401-11	CARBON	47	5%	1/4W	
R731	1-249-423-11	CARBON	3.3K	5%	1/4W	
R732	1-249-415-11	CARBON	680	5%	1/4W	
R733	1-249-415-11	CARBON	680	5%	1/4W	
R734	1-249-405-11	CARBON	100	5%	1/4W	
R735	1-215-493-00	METAL	1M	1%	1/6W	
R736	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
R737	1-215-491-00	METAL	820K	1%	1/6W	
R739	1-249-417-11	CARBON	1K	5%	1/4W	
		<VARIABLE RESISTOR>				
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M				
RV702⚠	1-230-619-11	RES, ADJ, METAL GLAZE 110M				
RV703	1-237-749-11	RES, ADJ, CARBON 220Ω				
RV704	1-237-749-11	RES, ADJ, CARBON 220Ω				
		**********				
	*A-1642-002-A	D BOARD, COMPLETE				
		**********				
	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P				
	*1-560-290-00	PLUG, CONNECTOR (2.5MM PITCH)				
	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P				
	*1-564-505-11	PLUG, CONNECTOR 2P				
	*1-565-394-11	PIN, BOARD TO BOARD CONNECTOR				
	*1-565-395-11	PIN, CONNECTOR 3P				
	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)				
	*1-566-660-11	CONNECTOR, HINGE (PLUG) 18P				
	*1-568-878-51	PIN, CONNECTOR 3P				
	*1-568-879-61	PIN, CONNECTOR 4P				
	*1-568-881-51	PIN, CONNECTOR 6P				
	*1-568-881-61	PIN, CONNECTOR 6P				
	*1-568-882-51	PIN, CONNECTOR 7P				
	*1-568-882-71	PIN, CONNECTOR 7P				
	4-200-001-01	HOLDER, IC				
	*4-341-751-01	EYELET				
	*4-341-752-01	EYELET				
	*4-368-683-01	SPRING				
		<CAPACITOR>				
C002	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C003	1-123-875-11	ELECT	10MF	20%	50V	
C004	1-124-120-11	ELECT	220MF	20%	16V	
C005	**1-124-791-11**	ELECT	1MF	20%	50V	
C006	1-102-978-00	CERAMIC	220PF	5%	50V	
C007	1-102-978-00	CERAMIC	220PF	5%	50V	
C008	1-101-880-00	CERAMIC	47PF	5%	50V	
C009	1-101-880-00	CERAMIC	47PF	5%	50V	
C010	1-124-120-11	ELECT	220MF	20%	16V	
C011	1-101-004-00	CERAMIC	0.01MF		50V	
C012	1-123-875-11	ELECT	10MF	20%	50V	
C013	1-106-220-00	MYLAR	0.1MF	10%	100V	
C014	1-106-220-00	MYLAR	0.1MF	10%	100V	
C015	1-124-902-00	ELECT	0.47MF	20%	50V	
C016	1-101-361-00	CERAMIC	150PF	5%	50V	
C017	1-106-220-00	MYLAR	0.1MF	10%	100V	
C018	1-102-980-00	CERAMIC	270PF	5%	50V	
C019	1-106-383-00	MYLAR	0.047MF	10%	100V	
C020	1-124-917-11	ELECT	33MF	20%	50V	
C021	1-102-973-00	CERAMIC	100PF	5%	50V	
C022	1-101-004-00	CERAMIC	0.01MF		50V	
C023	1-102-973-00	CERAMIC	100PF	5%	50V	
C024	1-102-973-00	CERAMIC	100PF	5%	50V	
C025	1-102-973-00	CERAMIC	100PF	5%	50V	
C027	1-124-910-11	ELECT	47MF	20%	50V	

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C251	1-124-499-11	ELECT	1MF	20%	50V
C252	1-126-233-11	ELECT	22MF	20%	50V
C253	1-102-074-00	CERAMIC	0.001MF	10%	50V
C254	1-106-220-00	MYLAR	0.1MF	10%	100V
C255	**1-124-636-00**	ELECT	**3300MF**	20%	25V
C261	**1-124-791-11**	ELECT	1MF	20%	50V
C262	1-126-233-11	ELECT	22MF	20%	50V
C263	1-102-074-00	CERAMIC	0.001MF	10%	50V
C264	1-106-220-00	MYLAR	0.1MF	10%	100V
C265	1-124-564-11	ELECT	4700MF	20%	25V
C501	1-124-927-11	ELECT	4.7MF	20%	50V
C502	1-124-927-11	ELECT	4.7MF	20%	50V
C503	1-106-371-00	MYLAR	0.015MF	10%	400V
C504	1-101-361-00	CERAMIC	150PF	5%	50V
C505	1-108-794-11	MYLAR	0.0015MF	5%	50V
C506	1-106-375-12	MYLAR	0.022MF	10%	250V
C507	1-130-783-00	MYLAR	0.33MF	10%	100V
C508	1-106-375-12	MYLAR	0.022MF	10%	250V
C509	1-106-220-00	MYLAR	0.1MF	10%	100V
C510	1-161-959-00	CERAMIC	22PF	10%	500V
C511	1-108-620-11	MYLAR	0.0033MF	10%	100V
C512	1-106-220-00	MYLAR	0.1MF	10%	100V
C513	1-102-978-00	CERAMIC	220PF	5%	50V
C514	1-106-228-00	MYLAR	0.22MF	10%	100V
C515	**1-124-791-11**	ELECT	1MF	20%	50V
C516	1-108-614-11	MYLAR	0.001MF	10%	100V
C517	1-124-252-00	ELECT	0.33MF	20%	50V
C518	1-124-902-00	ELECT	0.47MF	20%	50V
C519	1-136-173-00	FILM	0.47MF	5%	50V
C520	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C521	1-106-220-00	MYLAR	0.1MF	10%	100V
C522	1-124-122-11	ELECT	100MF	20%	50V
C523	1-108-614-11	MYLAR	0.001MF	10%	100V
C524	1-108-798-11	MYLAR	0.0033MF	5%	50V
C525	1-102-973-00	CERAMIC	100PF	5%	50V
C526	1-102-951-00	CERAMIC	15PF	5%	50V
C527	1-106-220-00	MYLAR	0.1MF	10%	100V
C531	1-124-190-00	ELECT	680MF	10%	25V
C532	1-124-122-11	ELECT	100MF	20%	50V
C533	1-106-216-00	MYLAR	0.068MF	10%	100V
C534	1-124-120-11	ELECT	220MF	20%	16V
C536	1-131-365-00	TANTALUM	10MF	10%	16V
C537	**1-124-791-11**	ELECT	1MF	20%	50V
C538	1-108-614-11	MYLAR	0.001MF	10%	100V
C539	1-102-820-00	CERAMIC	330PF	5%	50V
C592	1-124-122-11	ELECT	100MF	20%	50V
C593	1-102-820-00	CERAMIC	330PF	5%	50V
C601	1-162-599-12	CERAMIC	0.0047MF		250V
C602	1-162-599-12	CERAMIC	0.0047MF		250V
C603	1-162-599-12	CERAMIC	0.0047MF		250V
C604	1-125-318-00	ELECT(BLOCK)	220MF	20%	400V
C605	1-124-510-11	ELECT	220MF	20%	35V
C606	1-102-114-00	CERAMIC	470PF	10%	50V
C607	1-130-834-00	MYLAR	1MF	10%	63V
C608	1-124-927-11	ELECT	4.7MF	20%	50V
C611	1-124-910-11	ELECT	47MF	20%	50V
C612	1-108-614-11	MYLAR	0.001MF	10%	100V
C613	1-136-539-11	FILM	0.0022MF	3%	2KV
C614	1-102-030-00	CERAMIC	330PF	10%	500V
C615	1-124-557-11	ELECT	1000MF	20%	25V
C616	1-102-030-00	CERAMIC	330PF	10%	500V
C617	1-124-122-11	ELECT	100MF	20%	50V
C618	1-162-115-00	CERAMIC	330PF	10%	2KV
C619	1-124-556-11	ELECT	2200MF	20%	16V
C620	1-136-173-00	FILM	0.47MF	5%	50V
C621	1-124-347-00	ELECT	100MF	20%	160V
C622	1-124-556-11	ELECT	2200MF	20%	16V
C623	1-124-910-11	ELECT	47MF	20%	50V
C624	1-124-122-11	ELECT	100MF	20%	50V
C625	1-124-360-00	ELECT	1000MF	20%	16V
C626	1-123-875-11	ELECT	10MF	20%	50V
C627	1-108-614-11	MYLAR	0.001MF	10%	100V
C628	1-162-116-00	CERAMIC	680PF	10%	2KV
C631	1-124-927-11	ELECT	4.7MF	20%	50V
C632	1-102-973-00	CERAMIC	100PF	5%	50V
C633	1-102-973-00	CERAMIC	100PF	5%	50V
C801	1-126-105-11	ELECT	1000MF	20%	35V
C802	1-102-030-00	CERAMIC	330PF	10%	500V
C804	1-123-948-00	ELECT	22MF	20%	250V
C805	1-162-114-00	CERAMIC	0.0047MF		2KV
C806	1-106-220-00	MYLAR	0.1MF	10%	100V
C807	1-106-395-00	MYLAR	0.15MF	10%	200V
C810	**1-123-024-21**	ELECT	33MF		160V
C811	1-136-113-00	FILM	2MF	5%	200V
C812	1-124-634-11	ELECT	1MF	20%	250V
C813	1-102-212-00	CERAMIC	820PF	10%	500V
C814 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C815	1-136-111-00	FILM	1MF	5%	200V
C817	1-136-565-11	FILM	0.015MF	3%	1.4KV
C818	1-136-759-11	FILM	0.039MF	10%	630V
C819 ⚠	1-161-731-11	CERAMIC	0.001MF	10%	2KV
C820	1-106-218-00	MYLAR	0.0082MF	10%	400V
C821 ⚠	1-162-116-51	CERAMIC	680PF	10%	2KV
C822	1-102-114-00	CERAMIC	470PF	10%	50V
C823	1-106-359-00	MYLAR	0.0047MF	10%	400V
C824	1-102-212-00	CERAMIC	820PF	10%	500V
C825	1-106-375-12	MYLAR	0.022MF	10%	250V

<FILTER>

CF001	1-577-364-11	VIBRATOR, CERAMIC
CF501	1-567-888-11	OSCILLATOR, CERAMIC

<DIODE>

D001	8-719-911-19	DIODE 1SS119
D002	8-719-109-98	DIODE RD6.8ES-B3
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-109-89	DIODE RD5.6ES-B2
D006	**8-719-110-76**	DIODE RD33ES-B1
D007	8-719-911-19	DIODE 1SS119
D009	8-719-109-89	DIODE RD5.6ES-B2
D010	8-719-109-93	DIODE RD6.2ES-B2
D011	8-719-109-93	DIODE RD6.2ES-B2
D271	8-719-110-36	DIODE RD13ES-B2
D272	8-719-911-19	DIODE 1SS119
D501	8-719-911-19	DIODE 1SS119
D504	8-719-911-55	DIODE U05G
D506	8-719-016-42	DIODE MC932
D508	8-719-911-19	DIODE 1SS119
D509	8-719-911-19	DIODE 1SS119
D511	8-719-911-55	DIODE U05G
D512	8-719-911-55	DIODE U05G
D513	8-719-109-81	DIODE RD4.7ES-B2
D601	8-719-946-90	DIODE KBU4JL-6088
D602	8-719-300-33	DIODE RU-3AM

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D603	8-719-911-55	DIODE U05G	
D604	8-719-911-55	DIODE U05G	
D605	8-719-911-55	DIODE U05G	
D606	8-719-300-33	DIODE RU-3AM	
D607	8-719-300-33	DIODE RU-3AM	
D608	8-719-300-33	DIODE RU-3AM	
D609	8-719-110-76	DIODE RD33ES-B1	
D610	8-719-300-59	DIODE CTU-12S	
D611	8-719-900-26	DIODE ERD29-08J	
D612	8-719-300-59	DIODE CTU-12S	
D613	8-719-300-33	DIODE RU-3AM	
D614	8-719-300-33	DIODE RU-3AM	
D616	8-719-109-93	DIODE RD6.2ES-B2	
D617	8-719-911-19	DIODE 1SS119	
D618	8-719-109-89	DIODE RD5.6ES-B2	
D619	8-719-110-76	DIODE RD33ES-B1	
D620	8-719-016-42	DIODE MC932	
D621	8-719-110-76	DIODE RD33ES-B1	
D622	8-719-911-19	DIODE 1SS119	
D623	8-719-911-19	DIODE 1SS119	
D624	8-719-911-19	DIODE 1SS119	
D630	8-719-110-39	DIODE RD15ES-B1	
D801	8-719-300-33	DIODE RU-3AM	
D802	8-719-300-33	DIODE RU-3AM	
D803	8-719-300-65	DIODE ES1F	
D804	8-719-911-55	DIODE U05G	
D805	8-719-911-55	DIODE U05G	
D806	8-719-945-80	DIODE ERC06-15S	
D807	8-719-945-80	DIODE ERC06-15S	
D808	8-719-900-26	DIODE ERD29-08J	
		<IC>	
IC001	8-759-035-37	IC SDA2083-A006	
IC002	8-752-332-82	IC CXD1050A-09P	
IC003	8-759-945-58	IC RC4558P	
IC005	8-759-748-56	IC SDA2546	
IC251	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC251	
	4-812-134-00	RIVET NYLON, 3.5; IC251	
IC261	8-759-988-94	IC TDA2050	
	4-201-023-01	SPACER, INSULATING; IC261	
	4-812-134-00	RIVET NYLON, 3.5; IC261	
IC501	8-759-970-73	IC TEA2028B	
IC502	8-759-944-57	IC TDA8170	
IC601	8-759-988-95	IC TEA2260	
IC604	8-759-144-84	IC UPC24M05HF	
IC608	8-759-982-13	IC RC7812FA	
		<COIL>	
L001	1-408-414-00	INDUCTOR 27UH	
L501	1-408-225-00	INDUCTOR 3.3UH	
L601	*1-420-872-00	COIL, AIR CORE	
L602	1-410-396-41	FERRITE BEAD INDUCTOR	
L603	1-410-396-41	FERRITE BEAD INDUCTOR	
L604	1-410-671-31	INDUCTOR 47UH	
L605	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L606	1-421-013-00	COIL (HORIZONTAL CHOKE) 25UH	
L607	1-410-671-31	INDUCTOR 47UH	
L803	1-459-104-00	COIL, DUST CORE	
L804	1-408-239-00	INDUCTOR 4.7MMH	
L805 ⚠	1-459-755-12	COIL, HORIZONTAL LINEARITY	
L806	1-459-111-00	COIL, DRAM CORE (CDI)	
L809	*1-420-872-00	COIL, AIR CORE	
L810 ⚠	1-421-982-12	PMC	
		<IC LINK>	
PS601 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
PS602 ⚠	1-532-984-91	LINK, IC (ICP-N50) 2A	
		<TRANSISTOR>	
Q001	8-729-900-89	TRANSISTOR DTC144ES	
Q002	8-729-900-65	TRANSISTOR DTA144ES	
Q003	8-729-173-38	TRANSISTOR 2SA733-K	
Q004	8-729-173-38	TRANSISTOR 2SA733-K	
Q005	8-729-900-89	TRANSISTOR DTC144ES	
Q006	8-729-900-89	TRANSISTOR DTC144ES	
Q007	8-729-900-89	TRANSISTOR DTC144ES	
Q008	8-729-900-89	TRANSISTOR DTC144ES	
Q009	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q251	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q261	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q271	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q502	8-729-173-38	TRANSISTOR 2SA733-K	
Q505	8-729-140-96	TRANSISTOR 2SD774-34	
Q506	8-729-140-97	TRANSISTOR 2SB734-34	
Q507	8-729-173-38	TRANSISTOR 2SA733-K	
Q598	8-729-173-38	TRANSISTOR 2SA733-K	
Q601	8-729-111-67	TRANSISTOR **2SB1094-L**	
Q602	8-729-209-02	TRANSISTOR 2SD1548-LB	
Q603	8-729-111-67	TRANSISTOR **2SB1094-L**	
Q604	8-729-173-38	TRANSISTOR 2SA733-K	
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q606	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q607	8-729-920-92	TRANSISTOR 2SD2096-EF	
Q608	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q609	8-729-320-62	TRANSISTOR **2SD789-34**	
Q801	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-304-50	TRANSISTOR 2SD1941-06	
Q805	8-729-119-80	TRANSISTOR 2SC2688-LK	
		<RESISTOR>	
R001	1-249-413-11	CARBON 470 5% 1/4W	
R002	1-249-413-11	CARBON 470 5% 1/4W	
R003	1-249-417-11	CARBON 1K 5% 1/4W	
R004	1-249-417-11	CARBON 1K 5% 1/4W	
R005	1-249-417-11	CARBON 1K 5% 1/4W	
R006	1-249-429-11	CARBON 10K 5% 1/4W	
R007	1-249-425-11	CARBON 4.7K 5% 1/4W	
R008	1-249-429-11	CARBON 10K 5% 1/4W	
R009	1-249-429-11	CARBON 10K 5% 1/4W	
R010	1-249-413-11	CARBON 470 5% 1/4W	
R011	1-249-425-11	CARBON 4.7K 5% 1/4W	
R012	1-249-417-11	CARBON 1K 5% 1/4W	
R013	1-249-429-11	CARBON 10K 5% 1/4W	
R014	1-249-428-11	CARBON 8.2K 5% 1/4W	
R015	1-249-423-11	CARBON 3.3K 5% 1/4W	
R016	1-249-435-11	CARBON 33K 5% 1/4W	
R017	1-249-436-11	CARBON 39K 5% 1/4W	
R018	1-249-440-11	CARBON 82K 5% 1/4W	
R019	1-249-417-11	CARBON 1K 5% 1/4W	
R020	1-249-417-11	CARBON 1K 5% 1/4W	
R021	1-249-425-11	CARBON 4.7K 5% 1/4W	
R022	1-249-425-11	CARBON 4.7K 5% 1/4W	
R023	1-249-410-11	CARBON 270 5% 1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R024	1-249-417-11	CARBON	1K	5%	1/4W	
R025	1-249-405-11	CARBON	100	5%	1/4W	
R026	1-249-417-11	CARBON	1K	5%	1/4W	
R027	1-249-405-11	CARBON	100	5%	1/4W	
R028	1-249-405-11	CARBON	100	5%	1/4W	
R029	1-249-429-11	CARBON	10K	5%	1/4W	
R030	1-249-429-11	CARBON	10K	5%	1/4W	
R031	1-249-433-11	CARBON	22K	5%	1/4W	
R032	1-249-429-11	CARBON	10K	5%	1/4W	
R033	1-249-429-11	CARBON	10K	5%	1/4W	
R034	1-249-431-11	CARBON	15K	5%	1/4W	
R035	1-249-433-11	CARBON	22K	5%	1/4W	
R036	1-249-432-11	CARBON	18K	5%	1/4W	
R037	1-249-425-11	CARBON	4.7K	5%	1/4W	
R038	1-249-422-11	CARBON	2.7K	5%	1/4W	
R039	1-249-433-11	CARBON	22K	5%	1/4W	
R040	1-249-431-11	CARBON	15K	5%	1/4W	
R041	1-249-429-11	CARBON	10K	5%	1/4W	
R042	1-249-417-11	CARBON	1K	5%	1/4W	
R043	1-249-413-11	CARBON	470	5%	1/4W	
R044	1-249-441-11	CARBON	100K	5%	1/4W	
R045	1-249-423-11	CARBON	3.3K	5%	1/4W	
R046	1-249-435-11	CARBON	33K	5%	1/4W	
R047	1-249-429-11	CARBON	10K	5%	1/4W	
R048	1-249-429-11	CARBON	10K	5%	1/4W	
R049	1-249-429-11	CARBON	10K	5%	1/4W	
R050	1-249-426-11	CARBON	5.6K	5%	1/4W	
R051	1-249-413-11	CARBON	470	5%	1/4W	
R052	1-249-417-11	CARBON	1K	5%	1/4W	
R053	1-249-417-11	CARBON	1K	5%	1/4W	
R054	1-249-417-11	CARBON	1K	5%	1/4W	
R055	1-249-411-11	CARBON	330	5%	1/4W	
R056	1-249-405-11	CARBON	100	5%	1/4W	
R057	1-249-409-11	CARBON	220	5%	1/4W	
R058	1-249-424-11	CARBON	3.9K	5%	1/4W	
R059	1-249-417-11	CARBON	1K	5%	1/4W	
R060	1-249-417-11	CARBON	1K	5%	1/4W	
R061	1-249-417-11	CARBON	1K	5%	1/4W	
R062	1-249-417-11	CARBON	1K	5%	1/4W	
R063	1-249-417-11	CARBON	1K	5%	1/4W	
R064	1-249-417-11	CARBON	1K	5%	1/4W	
R065	1-249-417-11	CARBON	1K	5%	1/4W	
R066	1-249-417-11	CARBON	1K	5%	1/4W	
R067	1-249-417-11	CARBON	1K	5%	1/4W	
R068	1-249-417-11	CARBON	1K	5%	1/4W	
R069	1-249-417-11	CARBON	1K	5%	1/4W	
R070	1-249-417-11	CARBON	1K	5%	1/4W	
R071	1-249-417-11	CARBON	1K	5%	1/4W	
R072	1-249-417-11	CARBON	1K	5%	1/4W	
R073	1-249-417-11	CARBON	1K	5%	1/4W	
R074	1-249-425-11	CARBON	4.7K	5%	1/4W	
R075	1-249-409-11	CARBON	220	5%	1/4W	
R251	1-249-425-11	CARBON	4.7K	5%	1/4W	
R252	1-249-412-11	CARBON	390	5%	1/4W	
R253	1-249-429-11	CARBON	10K	5%	1/4W	
R254	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R255	1-249-429-11	CARBON	10K	5%	1/4W	
R256	1-247-897-11	CARBON	560K	5%	1/4W	
R257	1-249-431-11	CARBON	15K	5%	1/4W	
R258	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R259	1-249-425-11	CARBON	4.7K	5%	1/4W	
R261	1-249-425-11	CARBON	4.7K	5%	1/4W	
R262	1-249-412-11	CARBON	390	5%	1/4W	
R263	1-249-429-11	CARBON	10K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R264	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R265	1-249-429-11	CARBON	10K	5%	1/4W	
R266	1-247-897-11	CARBON	560K	5%	1/4W	
R267	1-249-431-11	CARBON	15K	5%	1/4W	
R268	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R269	1-249-425-11	CARBON	4.7K	5%	1/4W	
R271	1-249-415-11	CARBON	680	5%	1/4W	
R272	1-249-429-11	CARBON	10K	5%	1/4W	
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R500	1-247-897-11	CARBON	560K	5%	1/4W	
R501	1-249-413-11	CARBON	470	5%	1/4W	
R502	1-249-409-11	CARBON	220	5%	1/4W	
R503	1-249-410-11	CARBON	270	5%	1/4W	
R504	1-215-427-00	METAL	1.8K	1%	1/6W	
R505	1-249-431-11	CARBON	15K	5%	1/4W	
R506	1-249-428-11	CARBON	8.2K	5%	1/4W	
R509	1-249-424-11	CARBON	3.9K	5%	1/4W	
R510	1-249-426-11	CARBON	5.6K	5%	1/4W	
R514	1-249-409-11	CARBON	220	5%	1/4W	
R515	1-249-423-11	CARBON	3.3K	5%	1/4W	
R517	1-249-429-11	CARBON	10K	5%	1/4W	
R518	1-249-437-11	CARBON	47K	5%	1/4W	
R519	1-249-433-11	CARBON	22K	5%	1/4W	
R520	1-249-411-11	CARBON	330	5%	1/4W	
R521	1-249-405-11	CARBON	100	5%	1/4W	
R522	1-215-469-00	METAL	100K	1%	1/6W	
R523	1-249-417-11	CARBON	1K	5%	1/4W	
R524	1-249-421-11	CARBON	2.2K	5%	1/4W	
R525	1-249-417-11	CARBON	1K	5%	1/4W	
R526	1-249-409-11	CARBON	220	5%	1/4W	F
R527	1-249-431-11	CARBON	15K	5%	1/4W	
R528	1-249-408-11	CARBON	180	5%	1/4W	
R529	1-249-427-11	CARBON	6.8K	5%	1/4W	
R530	1-249-448-11	CARBON	1.2	5%	1/4W	F
R531	1-247-881-00	CARBON	120K	5%	1/4W	
R532	1-249-417-11	CARBON	1K	5%	1/4W	
R534	1-247-901-11	CARBON	820K	5%	1/4W	
R535	1-249-749-00	CARBON	2.2M	5%	1/4W	
R536	1-249-749-00	CARBON	2.2M	5%	1/4W	
R537	1-249-434-11	CARBON	27K	5%	1/4W	
R538	1-247-883-00	CARBON	150K	5%	1/4W	
R539	1-247-883-00	CARBON	150K	5%	1/4W	
R540	1-249-399-11	CARBON	33	5%	1/4W	
R541	1-249-438-11	CARBON	56K	5%	1/4W	
R542	1-249-389-11	CARBON	4.7	5%	1/4W	
R543	1-249-451-11	CARBON	2.2	5%	1/4W	
R544	1-247-745-11	CARBON	330	5%	1/2W	
R545	1-249-433-11	CARBON	22K	5%	1/4W	
R546	1-249-434-11	CARBON	27K	5%	1/4W	
R547	1-249-423-11	CARBON	3.3K	5%	1/4W	
R548	1-216-349-00	METAL OXIDE	1	5%	1W	F
R549	1-216-454-11	METAL OXIDE	390	5%	2W	F
R550	1-249-440-11	CARBON	82K	5%	1/4W	
R551	1-249-749-00	CARBON	2.2M	5%	1/4W	
R553	1-216-869-11	METAL OXIDE	1K	5%	1W	
R554	1-249-411-11	CARBON	330	5%	1/4W	
R555	1-249-749-00	CARBON	2.2M	5%	1/4W	
R556	1-249-405-11	CARBON	100	5%	1/4W	
R557	1-249-425-11	CARBON	4.7K	5%	1/4W	
R558	1-247-895-00	CARBON	470K	5%	1/4W	
R559	1-249-427-11	CARBON	6.8K	5%	1/4W	
R560	1-249-411-11	CARBON	330	5%	1/4W	
R591	1-249-416-11	CARBON	820	5%	1/4W	

D **H1** **H2**

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R592	1-249-417-11	CARBON	1K	5%	1/4W	
R593	1-249-419-11	CARBON	1.5K	5%	1/4W	
R594	1-249-428-11	CARBON	8.2K	5%	1/4W	
R597	1-249-413-11	CARBON	470	5%	1/4W	
R598	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R599	1-247-887-00	CARBON	220K	5%	1/4W	
R600	1-249-381-11	CARBON	1	5%	1/4W	
R603	1-216-400-11	METAL OXIDE	8.2	5%	3W	F
R604	1-249-405-11	CARBON	100	5%	1/4W	
R605	1-249-433-11	CARBON	22K	5%	1/4W	
R606	1-249-418-11	CARBON	1.2K	5%	1/4W	
R607	1-249-425-11	CARBON	4.7K	5%	1/4W	
R608	1-216-488-11	METAL OXIDE	18K	5%	3W	F
R609	1-249-396-11	CARBON	18	5%	1/4W	
R610	1-244-941-00	CARBON	680K	5%	1/2W	
R611	1-249-400-11	CARBON	39	5%	1/4W	
R612	1-249-417-11	CARBON	1K	5%	1/4W	
R613	1-249-441-11	CARBON	100K	5%	1/4W	
R614	1-205-758-11	WIREWOUND	100	10%	10W	F
R616	1-247-881-00	CARBON	120K	5%	1/4W	
R617	1-249-411-11	CARBON	330	5%	1/4W	
R618	1-216-431-11	METAL OXIDE	560	5%	1W	F
R619	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-249-433-11	CARBON	22K	5%	1/4W	
R621	1-249-431-11	CARBON	15K	5%	1/4W	
R622	1-249-429-11	CARBON	10K	5%	1/4W	
R623	1-249-433-11	CARBON	22K	5%	1/4W	
R624	1-249-426-11	CARBON	5.6K	5%	1/4W	
R625	1-215-865-11	METAL OXIDE	220	5%	1W	F
R626	1-249-411-11	CARBON	330	5%	1/4W	
R628	1-249-393-11	CARBON	10	5%	1/4W	
R629	1-249-411-11	CARBON	330	5%	1/4W	
R633	1-249-417-11	CARBON	1K	5%	1/4W	
R634	1-216-430-11	METAL OXIDE	390	5%	1W	F
R635	1-249-429-11	CARBON	10K	5%	1/4W	
R636	1-249-429-11	CARBON	10K	5%	1/4W	
R643	1-217-189-21	WIREWOUND	0.12	5%	2W	F
R647	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R648	1-216-485-11	METAL OXIDE	5.6K	5%	3W	F
R651	1-249-405-11	CARBON	100	5%	1/4W	
R653	1-205-758-11	WIREWOUND	100	10%	10W	F
R802	1-249-443-11	CARBON	0.47	5%	1/4W	F
R805	1-249-448-11	CARBON	1.2	5%	1/4W	F
R806	1-249-439-11	CARBON	68K	5%	1/4W	
R807	1-216-869-11	METAL OXIDE	1K	5%	1W	
R809	1-202-821-11	SOLID	1.8K	10%	1/2W	
R810	1-202-818-00	SOLID	1K	10%	1/2W	
R811	1-215-882-00	METAL OXIDE	22	5%	2W	F
R812	1-249-494-11	CARBON	68K	5%	1/2W	
R815	1-215-884-11	METAL OXIDE	47	5%	2W	F
R816	1-215-868-00	METAL OXIDE	680	5%	1W	F
R817	1-249-417-11	CARBON	1K	5%	1/4W	
R820	1-249-403-11	CARBON	68	5%	1/4W	
R821	1-247-725-11	CARBON	10K	5%	1/4W	F
R822 ⚠	1-217-778-61	FUSIBLE	1K	5%	1W	F
R825	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R826	1-249-441-11	CARBON	100K	5%	1/4W	
R827	1-249-429-11	CARBON	10K	5%	1/4W	
R828	1-249-423-11	CARBON	3.3K	5%	1/4W	
R829	1-249-416-11	CARBON	820	5%	1/4W	
R831	1-249-451-11	CARBON	2.2	5%	1/4W	
R5501	1-249-429-11	CARBON	10K	5%	1/4W	
R5503	1-249-389-11	CARBON	4.7	5%	1/4W	
R5504	1-247-903-00	CARBON	1M	5%	1/4W	
R5505	1-249-393-11	CARBON	10	5%	1/4W	

<VARIABLE RESISTOR>

RV501	1-238-013-11	RES, ADJ, CARBON 2.2K	
RV502	1-238-016-11	RES, ADJ, CARBON 10K	
RV601	1-238-011-11	RES, ADJ, CARBON 470	

<SPARK GAP>

SG801	1-519-422-11	GAP, SPARK	

<TRANSFORMER>

T601 ⚠	1-449-822-11	TRANSFORMER	
T602 ⚠	1-424-277-11	TRANSFORMER, TRIGGER PULSE	
T801 ⚠	1-437-090-21	HDT	
T802 ⚠	1-439-416-11	TRANSFORMER ASSY, FLYBACK (UX-1600)	

****

	*1-631-220-11	H1 BOARD	
		********	
	1-562-837-11	JACK	
	*1-564-512-11	PLUG, CONNECTOR 9P	
	1-568-678-11	TERMINAL BLOCK, S 3P	
	*1-568-878-51	PIN, CONNECTOR 3P	
	*1-568-879-51	PIN, CONNECTOR 4P	
	*1-568-879-61	PIN, CONNECTOR 4P	

<RESISTOR>

R1651	1-249-413-11	CARBON	470	5%	1/4W
R1652	1-249-413-11	CARBON	470	5%	1/4W

<SWITCH>

S1651	1-571-532-21	SWITCH, TACTIL	
S1652	1-571-532-21	SWITCH, TACTIL	
S1653	1-571-532-21	SWITCH, TACTIL	

****

	*1-631-221-11	H2 BOARD	
		********	
	*1-568-882-51	PIN, CONNECTOR 7P	
	*4-374-987-01	GUIDE, LIGHT	
	*4-381-686-01	BRACKET (B), LIGHT GUIDE	

<DIODE>

D1651	8-719-311-89	DIODE SEL1222R-C	
	*4-387-801-01	HOLDER, LED; D1651	
D1652	8-719-311-89	DIODE SEL1222R-C	
	*4-387-801-01	HOLDER, LED; D1652	
D1653	8-719-311-89	DIODE SEL1222R-C	
	*4-387-801-01	HOLDER, LED; D1653	
D1654	8-719-948-31	DIODE LD-201VR	
	*4-387-825-02	HOLDER, LED; D1654	

<IC>

IC1651	8-741-138-70	IC BX-1387	

H2 Y J2 J1

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R1661	1-249-413-11	CARBON	470	5% 1/4W	
R1662	1-249-413-11	CARBON	470	5% 1/4W	
**********					
	*1-631-217-11	Y BOARD			
		*******			
	*1-568-881-61	PIN, CONNECTOR 6P			
	*1-568-882-71	PIN, CONNECTOR 7P			
		<CAPACITOR>			
C1701	1-126-233-11	ELECT	22MF	20% 50V	
C1702	1-101-004-00	CERAMIC	0.01MF	50V	
C1703	1-126-233-11	ELECT	22MF	20% 50V	
C1704	1-101-004-00	CERAMIC	0.01MF	50V	
C1705	1-126-233-11	ELECT	22MF	20% 50V	
C1706	1-126-233-11	ELECT	22MF	20% 50V	
C1707	1-126-233-11	ELECT	22MF	20% 50V	
C1710	1-102-959-00	CERAMIC	22PF	5% 50V	
C1711	1-101-888-00	CERAMIC	68PF	5% 50V	
		<DIODE>			
D1701	8-719-911-19	DIODE 1SS119			
		<NR PACK>			
DNR170	1-466-181-11	NR PACK (NRP-2E)			
		<IC>			
IC1701	8-759-982-10	IC RC7809FA			
IC1702	8-759-604-29	IC M5F7805			
		<COIL>			
L1701	1-410-671-31	INDUCTOR	47UH		
L1702	1-408-405-00	INDUCTOR	4.7UH		
L1703	1-410-671-31	INDUCTOR	47UH		
		<TRANSISTOR>			
Q1701	8-729-900-89	TRANSISTOR DTC144ES			
Q1702	8-729-900-89	TRANSISTOR DTC144ES			
Q1703	8-729-900-80	TRANSISTOR DTC114ES			
Q1704	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q1705	8-729-173-38	TRANSISTOR 2SA733-K			
		<RESISTOR>			
R1701	1-215-860-11	METAL OXIDE	33	5% 1W	
R1702	1-249-425-11	CARBON	4.7K	5% 1/4W	
R1703	1-249-434-11	CARBON	27K	5% 1/4W	
R1704	1-249-425-11	CARBON	4.7K	5% 1/4W	
R1705	1-249-426-11	CARBON	5.6K	5% 1/4W	
R1706	1-249-427-11	CARBON	6.8K	5% 1/4W	
R1707	1-249-429-11	CARBON	10K	5% 1/4W	
R1708	1-249-429-11	CARBON	10K	5% 1/4W	
R1710	1-249-433-11	CARBON	22K	5% 1/4W	
R1711	1-249-438-11	CARBON	56K	5% 1/4W	
R1712	1-249-413-11	CARBON	470	5% 1/4W	
R1713	1-249-414-11	CARBON	560	5% 1/4W	
R1714	1-249-417-11	CARBON	1K	5% 1/4W	
R1717	1-249-417-11	CARBON	1K	5% 1/4W	
R1718	1-249-417-11	CARBON	1K	5% 1/4W	
R1723	1-249-415-11	CARBON	680	5% 1/4W	
**********					
	*1-631-222-11	J2 BOARD			
		********			
	1-537-088-21	TERMINAL BOARD, INPUT/OUTPUT			
	*1-564-517-11	PLUG, CONNECTOR 2P			
	*1-564-519-11	PLUG, CONNECTOR 4P			
		<CAPACITOR>			
C1751	1-101-005-00	CERAMIC	0.022MF	50V	
C1752	1-101-005-00	CERAMIC	0.022MF	50V	
C1755	1-102-114-00	CERAMIC	470PF	10% 50V	
C1756	1-102-114-00	CERAMIC	470PF	10% 50V	
		<COIL>			
L1751	1-412-240-11	INDUCTOR, WIDE BAND			
L1752	1-412-240-11	INDUCTOR, WIDE BAND			
**********					
	*A-1651-003-A	J1 BOARD, COMPLETE			
		**********			
	1-561-534-41	SOCKET 21P			
	*1-564-518-11	PLUG, CONNECTOR 3P			
	*1-564-524-11	PLUG, CONNECTOR 9P			
	*1-564-527-11	PLUG, CONNECTOR 12P			
	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P			
		<CAPACITOR>			
C203	1-124-925-11	ELECT	2.2MF	20% 50V	
C205	1-124-927-11	ELECT	4.7MF	20% 50V	
C206	1-124-925-11	ELECT	2.2MF	20% 50V	
C207	1-124-927-11	ELECT	4.7MF	20% 50V	
C213	1-126-233-11	ELECT	22MF	20% 50V	
C214	1-106-363-00	MYLAR	0.0068MF	10% 400V	
C217	1-106-363-00	MYLAR	0.0068MF	10% 400V	
C218	1-106-375-12	MYLAR	0.022MF	10% 250V	
C219	1-106-375-12	MYLAR	0.022MF	10% 250V	
C220	1-108-620-11	MYLAR	0.0033MF	10% 100V	
C221	1-108-620-11	MYLAR	0.0033MF	10% 100V	
C222	1-106-385-00	MYLAR	0.056MF	10% 100V	
C223	1-106-385-00	MYLAR	0.056MF	10% 100V	
C224	1-106-367-00	MYLAR	0.01MF	10% 400V	
C225	1-136-173-00	FILM	0.47MF	5% 50V	
C226	1-136-173-00	FILM	0.47MF	5% 50V	
C227	1-106-375-12	MYLAR	0.022MF	10% 250V	
C228	1-106-379-12	MYLAR	0.033MF	10% 250V	
C229	1-106-371-00	MYLAR	0.015MF	10% 400V	
C230	1-106-371-00	MYLAR	0.015MF	10% 400V	
C231	1-124-902-00	ELECT	0.47MF	20% 50V	
C232	1-123-875-11	ELECT	10MF	20% 50V	
C233	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C234	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C235	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C236	1-163-005-11	CERAMIC CHIP	470PF	10% 50V	
C237	1-124-902-00	ELECT	0.47MF	20% 50V	
C238	1-163-125-00	CERAMIC CHIP	220PF	5% 50V	

J1

REF.NO.	PART NO.	DESCRIPTION			REMARK
C239	1-126-103-11	ELECT	470MF	20%	16V
C1401	1-123-875-11	ELECT	10MF	20%	50V
C1402	1-126-103-11	ELECT	470MF	20%	16V
C1403	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1404	1-124-902-00	ELECT	0.47MF	20%	50V
C1405	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1406	1-124-902-00	ELECT	0.47MF	20%	50V
C1407	1-124-910-11	ELECT	47MF	20%	50V
C1408	1-124-122-11	ELECT	100MF	20%	50V
C1409	1-126-233-11	ELECT	22MF	20%	50V
C1410	1-123-875-11	ELECT	10MF	20%	50V
C1411	1-123-875-11	ELECT	10MF	20%	50V
C1412	1-124-910-11	ELECT	47MF	20%	50V
C1413	1-124-910-11	ELECT	47MF	20%	50V
C1414	1-123-875-11	ELECT	10MF	20%	50V
C1415	1-124-902-00	ELECT	0.47MF	20%	50V
C1416	1-124-902-00	ELECT	0.47MF	20%	50V
C1417	1-124-120-11	ELECT	220MF	20%	16V
C1418	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1419	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1425	1-124-902-00	ELECT	0.47MF	20%	50V
C1426	1-124-902-00	ELECT	0.47MF	20%	50V
C1427	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1428	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1429	1-136-017-00	CERAMIC CHIP	0.0047MF		50V
C1430	1-163-003-11	CERAMIC CHIP	330PF	10%	50V
C1431	1-126-529-11	ELECT	0.47MF	20%	50V
C1432	1-124-902-00	ELECT	0.47MF	20%	50V
C1433	1-124-122-11	ELECT	100MF	20%	50V
C1436	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1437	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1438	1-106-367-00	MYLAR	0.01MF	10%	400V
C1439	1-106-367-00	MYLAR	0.01MF	10%	400V
C1440	1-123-875-11	ELECT	10MF	20%	50V
C1441	1-123-875-11	ELECT	10MF	20%	50V
C1442	1-124-910-11	ELECT	47MF	20%	50V
C1443	1-124-910-11	ELECT	47MF	20%	50V
C1444	1-124-910-11	ELECT	47MF	20%	50V
C1445	1-102-824-00	CERAMIC	470PF	5%	50V
C1446	1-102-824-00	CERAMIC	470PF	5%	50V
C1501	1-123-875-11	ELECT	10MF	20%	50V
C1502	1-123-875-11	ELECT	10MF	20%	50V
C1503	1-108-614-11	MYLAR	0.001MF	10%	100V
C1504	1-124-910-11	ELECT	47MF	20%	50V
C1505	1-106-383-00	MYLAR	0.047MF	10%	100V
C1507	1-108-620-11	MYLAR	0.0033MF	10%	100V
C1508	1-123-875-11	ELECT	10MF	20%	50V
C1509	1-124-791-11	ELECT	1MF	20%	50V
C1511	1-123-875-11	ELECT	10MF	20%	50V
C1512	1-106-363-00	MYLAR	0.0068MF	10%	400V
C1513	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C1514	1-106-375-12	MYLAR	0.022MF	10%	250V
C1515	1-102-117-00	CERAMIC	820PF	10%	50V

<CONNECTOR>

CN1401	1-565-838-11	PIN JACK BLOCK 2P

<DIODE>

D201	8-719-110-14	DIODE RD9.1ES-B3
D202	8-719-110-14	DIODE RD9.1ES-B3
D205	8-719-110-04	DIODE RD7.5ES-B3
D206	8-719-110-04	DIODE RD7.5ES-B3
D1401	8-719-110-04	DIODE RD7.5ES-B3
D1403	8-719-110-04	DIODE RD7.5ES-B3
D1404	8-719-110-04	DIODE RD7.5ES-B3
D1405	8-719-110-04	DIODE RD7.5ES-B3
D1406	8-719-110-04	DIODE RD7.5ES-B3
D1407	8-719-110-18	DIODE RD10ES-B3
D1408	8-719-110-14	DIODE RD9.1ES-B3
D1409	8-719-110-14	DIODE RD9.1ES-B3
D1410	8-719-110-14	DIODE RD9.1ES-B3
D1415	8-719-110-04	DIODE RD7.5ES-B3
D1418	8-719-110-04	DIODE RD7.5ES-B3
D1419	8-719-110-04	DIODE RD7.5ES-B3
D1420	8-719-110-04	DIODE RD7.5ES-B3
D1421	8-719-110-04	DIODE RD7.5ES-B3
D1422	8-719-110-04	DIODE RD7.5ES-B3
D1423	8-719-110-04	DIODE RD7.5ES-B3
D1424	8-719-110-04	DIODE RD7.5ES-B3
D1425	8-719-110-04	DIODE RD7.5ES-B3
D1426	8-719-110-04	DIODE RD7.5ES-B3
D1501	8-719-300-33	DIODE RU-3AM
D1502	8-719-911-19	DIODE 1SS119
D1503	8-719-911-19	DIODE 1SS119
D1504	8-719-911-19	DIODE 1SS119
D1505	8-719-911-19	DIODE 1SS119
D1506	8-719-110-85	DIODE RD36ES-B4
D1507	8-719-911-19	DIODE 1SS119
D1510	8-719-911-19	DIODE 1SS119

<IC>

IC201	8-759-013-17	IC TDA6200
IC1401	8-752-032-27	IC CXA1114P
IC1402	8-759-946-32	IC TEA2014A
IC1403	8-759-240-53	IC TC4053BP
IC1501	8-759-942-16	IC TEA2031A

<TRANSISTOR>

Q201	8-729-271-22	TRANSISTOR 2SC2712-G
Q202	8-729-271-22	TRANSISTOR 2SC2712-G
Q1401	8-729-216-22	TRANSISTOR 2SA1162
Q1402	8-729-271-22	TRANSISTOR 2SC2712-G
Q1403	8-729-271-22	TRANSISTOR 2SC2712-G
Q1404	8-729-216-22	TRANSISTOR 2SA1162

<RESISTOR>

R201	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R202	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R203	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R204	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R205	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R206	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R208	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R209	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R210	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R211	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R212	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R213	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R214	1-216-033-00	METAL GLAZE	220	5%	1/10W
R215	1-216-081-00	METAL GLAZE	22K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R216	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R217	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R219	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R220	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R221	**1-216-041-00**	METAL GLAZE	**470**	5%	1/10W	
R222	**1-216-041-00**	METAL GLAZE	**470**	5%	1/10W	
R223	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R224	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R225	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R226	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R227	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R228	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R229	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R230	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R232	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R233	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R234	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1401	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1402	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1403	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1404	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1405	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1407	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1408	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1409	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1410	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1411	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1412	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1413	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1414	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1415	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1416	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1417	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1418	1-247-738-11	CARBON	82	5%	1/2W	F
R1422	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1423	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1424	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1425	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1426	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1427	1-216-001-00	METAL GLAZE	10	5%	1/10W	
R1428	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1429	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1430	1-216-170-00	METAL GLAZE	68	5%	1/8W	
R1431	**1-249-413-11**	**CARBON**	**470**	**5%**	**1/4W**	
R1432	**1-249-413-11**	**CARBON**	**470**	**5%**	**1/4W**	
R1433	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1434	1-249-393-11	CARBON	10	5%	1/4W	F
R1437	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1440	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1441	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1442	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1443	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1444	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1445	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1446	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1447	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1448	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1452	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1453	1-216-049-00	METAL GLAZE	1K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1454	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1455	1-216-180-00	METAL GLAZE	180	5%	1/8W	
R1457	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1459	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1460	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1461	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1462	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1463	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1464	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1465	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1466	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1467	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1468	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1469	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1471	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1472	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1473	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R1474	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1476	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1477	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1478	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1480	1-216-190-00	METAL GLAZE	470	5%	1/8W	
R1482	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1483	1-216-178-00	METAL GLAZE	150	5%	1/8W	
R1484	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1485	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1486	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1487	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1488	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1489	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1501	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1502	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1503	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1504	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1505	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1506	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1509	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1510	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1511	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1512	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1513	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1514	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1515	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R1516	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1517	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1519	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1520	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1521	1-216-214-00	METAL GLAZE	4.7K	5%	1/8W	
R1556	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

<VARIABLE RESISTOR>

RV1501	1-238-023-11	RES, ADJ, CARBON 470K
RV1502	1-228-994-00	RES, ADJ, CARBON 10K
RV1503	1-238-017-11	RES, ADJ, CARBON 22K
RV1504	1-238-012-11	RES, ADJ, CARBON 1K
RV1505	1-238-023-11	RES, ADJ, CARBON 470K
RV1506	1-238-017-11	RES, ADJ, CARBON 22K
RV1507	1-238-009-11	RES, ADJ, CARBON 220
RV1508	1-238-016-11	RES, ADJ, CARBON 10K
RV1509	1-238-023-11	RES, ADJ, CARBON 470K

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
⚠	1-426-372-11	COIL, DEMAGNETIZATION	
⚠	1-451-311-31	DEFLECTION YOKE (Y25FXA)	
	1-452-032-00	MAGNET, DISK; 10MM φ	
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ	
⚠	1-575-487-11	CORD, POWER (WITH NOISE FILTER)	
V901	⚠ 8-733-224-05	PICTURE TUBE (A59JWC60X)	

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PART NO.	DESCRIPTION	REMARK
	ACCESSORIES AND PACKING MATERIALS	
	**********	
1-465-363-11	COMMANDER ASSY (RM-689)	
*A-1678-001-A	BOX ASSY, WOOFER	
*A-1678-010-A	BOX ASSY (RIGHT), SPEAKER	
*A-1678-012-A	BOX ASSY (LEFT), SPEAKER	
*3-704-280-01	BAG, PROTECTION (STANDARD)	
3-759-001-12	MANUAL, INSTRUCTION	
*4-201-012-01	CUSHION (UPPER) (ASSY)	
*4-201-013-01	CUSHION (LOWER) (ASSY)	
*4-201-015-01	INDIVIDUAL CARTON	
*4-380-340-01	BAG, PROTECTION	

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